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ABSTRACT

The state of knowledge about adult part-time learners and the programs designed to serve them are reviewed. The primary sources of information were recent data collection projects sponsored by state and national agencies to determine the characteristics and needs of adult learners and potential learners. Selected program descriptions were also studied to determine current program responses to learner needs. Major findings include: (1) Interest in adult education is related to socioeconomic status. (2) Participation and interest in educational activities show considerable regional variation. (3) Adults have a pragmatic orientation to eudcation. (4) The kind of education desired is related to adult life stages. (5) Education for adults must have high credibility. (6) Women are closing the educational gap between men and women, but there is some evidence that today's voluntary and largely self-supporting adult education is widening the gap between Caucasians and ethnic minorities and between the "haves" and "have nots." (7) There is a high correspondence between the "needs" identified in assessment studies and the component responses offered by nontraditional programs. (8) There is a great variety in the nontraditional programs studied, making it difficult to group programs into typologies. (9) The trend is toward different forms of education and services for nontraditional learners as opposed to an expansion of traditional education to include adult learners. (Author/LBH)

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THE NEEDS OF NON-TRADITIONAL LEARNERS AND THE RESPONSES OF NON-TRADITIONAL PROGRAMS

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June 1977

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Foreword

TOWARD AN EVALUATION OF NON-TRADITIONAL DEGREE PROGRAMS

In August 1976, the Center for Research and Development in Higher Education at Berkeley began work on a nine-month contract with the National Institute of Education to plan a two-year evaluation study of non-traditional degree programs. After five months of work during which the Center staff responded to a variety of propositions set forth by NIE in its original proposed statement of work, it became clear that many factors made it impossible to put an evaluation study in place by the May 15 deadline.

In January 1977, NIE and the staff agreed that for the remainder of the contract period it would be more productive for the staff to complete three miniprojects related to the evaluation of non-traditional degree programs rather than to plan a specific study as originally envisaged. The three miniprojects are:

I. The Needs of Non-traditional Learners and the Responses of Non-Traditional Programs.

II. Identification of Decisionmakers Concerned with Non-Traditional Degree Programs and an Analysis of Their Information Needs.

III. Information Specifications for Development of Instruments to be Used in the Evaluation of Non-Traditional Programs.

The miniporjects, while all related to the evaluation of non-traditional programs, were written as three separate reports. It is hoped that the miniprojects will provide useful background for reaching eventual agreements on some appropriate evaluation designs for the enormous diversity represented in "non-traditional education."

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I. INTRODUCTION--DEFINING THE TASK

The answer to the question, how well does education serve the needs of individuals and society, has become steadily more complex. One hundred years ago, educational "needs" and "desires" could be satisfied through teaching people the basic skills of reading, writing, and arithmetic at a fairly elementary level that would enable people to communicate in a basically agricultural society that did not need much communication. The country then went through an era when the curriculum became more complex and diverse, but the clientele became more homogeneous. In postsecondary education, homogeneity of student bodies probably reached a peak in the late 1950s when most students were 18-23 year-old white males from the middle and upper classes who had done reasonably well academically in secondary school. Today, the educational needs of society are complex; the needs and desires of learners are terribly diverse; and the citizenry to be served is everyone. How then does one start to answer the question, how well does education serve the needs of learners?

The first giant step in delimitation has been taken in the NIE work statement which calls for addressing the question, how well do non-traditional postsecondary external degree programs serve the needs of non-traditional students? Although there is considerable flexibility in the NIE work statement regarding the definition of "non-traditional," the NIE scope of interest can be taken to coincide with common useage which defines non-traditional

students broadly as adult part-time learners. There is, of course, plenty of confusion over what constitutes "part-time" and who is an "adult." For those who collect, compare, and disseminate statistics on adult education, there is obviously a need for precision in definition (Okes, 1976), but for our purposes the major concern is with learning opportunities and adequacy for people from 17 to 80 or older who combine adult responsibilities of job, home, and family with educational activities.

In 1975, there were at least 17 million participants in adult education[1] who were 17 or older and not full-time students in high school or college. Of these participants approximately 37 percent were enrolled in courses sponsored by colleges, and about 11 percent were enrolled for two- or four-year degree credit (NCES, 1975). What proportion of these students were enrolled in "non-traditional" programs is anyone's guess, and depends on the definition of non-traditional programs. By one fairly standard definition, a non-traditional program is, among other things, any program that is unconventional with respect to the type of students enrolled (Ruyle & Geiselman, 1974). Under this definition, the typical evening college, enrolling largely adult part-time learners, is non-traditional even if it offers courses from the traditional curriculum, taught in standard classroom format by regular college faculty members on the college campus. Programs flying under the non-traditional banner today range all the way from this example of a unidimensional program--non-traditional only with respect to scheduling--to multidimensional non-traditional programs that are unconventional with respect to location, schedule, students, faculty, methods of instruction, and curricular content.

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[1]This figure is generally regarded as conservative even by those within NCES who compile official adult education enrollments because people tend to forget or fail to mention educational activities that would qualify. Other estimates range from 30,000 (CNS, 1974) to 60,000 (Moses, 1969) adults engaged in some form of organized learning activity.

There is a substantial difference between non-traditional students and non-traditional students served by non-traditional degree programs. Even under the most generous definitions, non-traditional *degree* programs probably serve less than 10 percent of the adult learners in the country who are not full-time students. It would, however, be shortsighted to limit our discussion of *access* issues to those presently served or even to those presently expressing an interest in degree credit. Between 80 (CNS, 1974)[2] and 90 (NCES, 1975) percent of the students currently participating in organized adult learning activities on a part-time basis are high school graduates. As such they are eligible for postsecondary degree-credit. Although a minority of these learners express interest in degree-credit, there is evidence that more people want credit than receive it (CNS, 1974). Apparently there are unfulfilled degree aspirations now among non-traditional learners, and as degree-credit becomes increasingly available to part-time learners, interest in degrees is likely to increase.

A second reason for not limiting our description of student needs and characteristics to degree-oriented non-traditional learners is that almost all state and national needs assessment studies of non-traditional learners use a broad definition in an effort to determine the educational needs of the state, as opposed perhaps to the educational market for colleges. Thus not only do we lack data on degree-oriented students, but policymakers everywhere are mindful that the lifelong learning envisioned for the future will involve combinations of many learning options from a variety of sponsors. For these reasons, student needs will be addressed using the standard broad definition of non-traditional learner--adult part-time learners.

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[2]State and national studies are referenced by state or agency in the text and in Appendix C and by author in the references.

There are really two dimensions to the question, how well do non-traditional programs serve non-traditional students. One might be phrased, how well do non-traditional programs serve the needs of students *enrolled in them*. This is a question that has not been satisfactorily answered for traditional education yet, but it is one about which educators and legislators are increasingly concerned.

There is another evaluation question, however, that has had much more attention in recent years, especially on the part of policy- and decisionmakers. It is the *access* question of which populations of potential learners are served at all by non-traditional programs. The issue here is not so much the adequacy of the program as the accessibility of it to previously unserved segments of the society.

The broad question of how well non-traditional programs serve the needs of non-traditional students has two aspects then--quality and consumer satisfaction issues (program adequacy) and equal opportunity issues (accessibility). Accessibility, of course, is the prior question if one is interested in assessing the impact of non-traditional education on previously unserved segments of the population. By definition, non-traditional programs have opened new doors of educational opportunity to adult part-time learners. There is not much evidence, however, that non-traditional education has succeeded any more than traditional education is serving disadvantaged segments of society. As Medsker *et al.* (1975) concluded, the students served by the 16 external degree programs they studied appeared "simply to be older versions of the 18 to 24 college-age group" (p. 55), so far as socioeconomic indicators were concerned. Virtually all studies of the characteristics of the participants across the range of adult education programs agree that the people served are predominantly privileged members of society. They are disproportionately young, white, well-educated, white-collar workers from the middle and upper classes.

This fact complicates any very satisfactory evaluation of how well non-traditional programs are serving previously excluded segments of society. Since some, if not most, previously excluded groups are still not participating in educational programs--especially not degree programs--the question must be tackled in two phases: 1) Which population groups have gained access to educational opportunity via non-traditional routes, and 2) How well are non-traditional programs serving needs of students once enrolled?

This paper presents data addressed primarily to the first question, but it attempts to lay a conceptual groundwork for future studies concerned about the second question. To gain a satisfactory grasp on either question, some agreement must be reached about which groups of potential learners are of special interest to educators, decisionmakers, and the broader society. At the present time, governmental agencies and (therefore?) many other study groups collect data on demographic[3] or Census Bureau variables such as race, age, sex, occupation, education, income, place of residence, etc. These variables appeal to statisticians because they are presumably objective ways to define certain populations of people. And they are of interest to society right now because, unfortunately, the variables of race, sex, and age are identified with widespread discriminatory practices in society. Since educational opportunity is seen as the single most important corrective device to bring about social and economic justice, it is not surprising that access to education is almost always measured along social justice dimensions. One important indicator of the nation's progress in civil rights is increased access of women and ethnic minorities, and more recently the elderly, to the full range of educational opportunities.

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[3]Although some purists object to the use of the term "demographic" to refer to descriptive data such as age, sex, race, educational attainment, occupation, etc., it is an increasingly common convenience to distinguish between biographical and attitudinal data. We adopt this convention throughout this paper.

But it is increasingly true now that the barriers to *educational* participation are not skin color or sex or age *per se*, but the social correlates of those characteristics which are the result of discrimination, e.g., low income, low levels of educational attainment, lack of information about educational opportunity, lack of motivation and academic self-confidence, etc. While it may be quite legitimate to measure social progress by using race, sex, and age to determine *accessibility* to educational, social, and employment opportunities, it may not be desirable to use these variables to evaluate the *adequacy* of educational programs. Unless we can show that blacks, for example, have a common and distinctive profile of educational needs, it will be impossible to say whether educational programs are meeting their needs once enrolled. We are going to contend in this paper that population descriptors such as race, sex, and age *are* useful in determining the accessibility of non-traditional education to previously unserved segments of society. But we are going to question the commonly held assumption that such descriptors are useful in evaluating the adequacy of educational programs or in planning for improved programs and services.

We are not the first to question the practical utility of demographic descriptors for educational planning and evaluation. Morstain and Smart (in press) found that demographic variables were not uniquely descriptive of motivational orientation, and cautioned that "if one is interested in assessing the motivational orientations of adult learners, it may be somewhat confounding to group individuals on the basis of demographic variables." And a moment's reflection shows why this is true. While blacks as a group differ from whites as a group on variables such as income, level of educational attainment, etc., they run the full gamut in educational needs from basic literacy education to advanced professional education. Although virtually every study of non-traditional students collects data on race, sex, and age, and in some

cases presents extensive cross-tabulations, it is difficult to identify a "black profile" or a "women's profile" of educational needs and interests. One would expect a more homogeneous profile to emerge from using educationally based variables such as interest in a particular subject or need for a non-traditional schedule. Yet these educational preference variables are rarely cross-tabulated with other variables to derive profiles of students with particular needs or interests. Although the data are scanty, we shall look at the potential for more fruitful analyses from the data collected in needs assessments studies.

In summary, the purposes of this paper are four-fold:

1. Using data collected in national and state studies of learners and potential learners, we will attempt to make some assessment of the *access* issues of non-traditional education. We will concentrate our analysis around the frequently studied socially significant variables of age, sex, race, educational attainment, and geographical regions.

2. Using state and national reports, we will attempt to present a synthesis of the findings about the needs and interests of adult part-time learners. This will be a state-of-the-art report on our understanding of the general needs of the population to be served.

3. Using the generalized findings of state needs assessments, we will construct a student needs profile in order to provide a conceptual framework of variables useful in addressing the question, how adequately are the needs of non-traditional learners being met?

4. Using descriptions of non-traditional degree programs that have been developed to meet the needs of adult part-time learners, we will develop a set of program components. This taxonomy should provide a useful tool in describing and evaluating non-traditional programs.

II. ACCESSIBILITY OF EDUCATION FOR NON-TRADITIONAL STUDENTS

The 1975 Triennial Survey of Adult Education conducted by The National Center for Education Statistics (NCES) provides the most complete and most recent source of data we have with respect to national access issues. One of the major groups for NCES tabulation purposes corresponds very well to our definition of the non-traditional student which is "persons beyond compulsory school age, 17 or older, who were not enrolled full-time in high school or college but were engaged in one or more activities of organized instruction." While "activities of organized instruction" is a definition of adult education that goes far beyond college degree-oriented programs, it represents the range of educational alternatives and will be helpful in looking broadly at the educational interests of various populations of learners, whether presently degree-oriented or not.

One way to present information about who is served by adult education (AE) is to simply take the largest frequencies in each category of the 1975 NCES data and construct a modal profile of participants. This method of looking at the data will give some notion of the high volume areas of adult education.

In 1975, the *largest numbers* of learners fell in the following categories: They were white high school graduates, between 25 and 34 years of age, employed more than 35 hours per week, with annual family incomes of $15,000 to $25,000. Female participants were

slightly more numerous than male participants. They were taking job-related courses to improve or advance their status in their current jobs. The courses they took were sponsored by two- or four-year colleges and taught in standard classroom format, meeting in school buildings and on college campuses. Learners paid for their courses from their own or family funds, and while most found that the courses met or exceeded their expectations, the single most common reason for dropping a course was because it was disappointing or too demanding.

There is nothing at all surprising about that profile of participants in AE. It shows that the great bulk of participants come from the great bulk of the American public.

There is another way of looking at the national statistics, however, which shows quite clearly that certain groups within the society reap more than their fair share of adult education benefits. The profile of those who are disproportionately represented in educational activities in comparison with their representation in the population looks a little less like the average American and a little more like the privileged classes. Those taking the greatest advantage of AE offerings are relatively young, white, well-educated, employed in professional and technical occupations, and making good incomes.

Table 1 shows the AE participation rate of various categories of adults over the age of 17 who were not full-time students in 1975. According to NCES data, 11.6 percent of the adults in the United States were engaged in some form of organized instruction during the year. Groups with a below-average (below 11.6 percent) rate of participation are underlined.

Table 1

Participation Rate in Adult Education in 1975, with Groups Having "Below-Average" (11.6 percent) Participation Rates Underlined.

	Participation rate
Age	
17-24	11.5
25-34	20.6
35-44	15.0
45-54	10.5
55-64	5.8
65 and older	2.3
Race	
Black	6.9
White[1]	12.1
Other	13.4
Sex	
Male	11.7
Female	11.6
Educational attainment	
Elementary (0-8 years)	2.0
High school (1-3 years)	4.6
High school (4 years)	11.9
College (1-3 years)	17.6
College (4 years)	27.0
College (5 or more years)	30.0
Income (dollars per year)	
Under 3000	4.4
3000-4999	5.5
5000-5999	7.5
6000-7499	9.1
7500-9999	11.5
10,000-14,999	12.9
15,000-24,999	15.8
25,000 and over	17.7
Hours worked May 11-17, 1975	
Less than 10	7.2
10-14 hours	8.6
15-34 hours	11.6
35 or more	15.3

Table 1 (con't)

	Participation rate
Region	
Northeast	10.0
North Central	11.2
South	10.4
West	16.6
Metropolitan status	
In SMSA[2]	12.7
Central city	11.0
Outside central city	14.0
Not SMSA	9.4
Non-farm	9.8
Farm	6.7

[1]The Census Bureau classifies Spanish-speaking persons not as "other," but as black or white.

[2]Standard Metropolitan Statistical Area (SMSA) is a complex category of population density used in Census Bureau analyses.

Source: Compiled from 1975 NCES data.

The message is quite clear that adult education is serving the privileged classes out of proportion to their numbers in the population. The underlined categories in Table 1 reveal that blacks, the elderly, those with part-time jobs, low incomes, and low educational attainment are not well served by adult education, so far as access is concerned. Table 1 also shows some interesting regional and population density variations in the accessibility of education which will be discussed more fully later.

A closer examination of the profile of some of the underrepresented groups follows:

A. ETHNIC MINORITIES

Despite the concern in recent years about educational opportunity for ethnic minorities, the data on participation and preferences of minority groups is not very complete. The most comprehensive data about race as a variable in adult education appears in the Triennial Surveys of NCES for 1969, 1972, and 1975. But even in these data, publication of categories is limited to black, white, and other.[4]

The common practice in most state studies is to collect data about many ethnic groups but to analyze not more than three categories. The Colorado study (1975), for example, uses white, Spanish American, and other; the California study (1975) analyzes data for white, Spanish surname, and blacks; the national Commission study (CNS, 1974) presents data for blacks and whites.

Since the best, albeit limited, data base on ethnic minorities appears in the NCES data, we shall use it as the foundation for this analysis, presenting data from other studies when appropriate to confirm, dispute, or elaborate. Since educational needs are known to differ greatly among ethnic groups such as Orientals and American Indians, it would appear that analysis based on collections of miscellaneous "others" would be fruitless, hence discussion will be limited to differences between blacks and whites, and where material is available from state studies, to Spanish Americans.

In 1975, 12.1 percent of the whites participated in some form of AE compared to 6.9 percent of blacks. For some not immediately apparent reason, the educational opportunities represented in AE are getting worse for blacks rather than better. In the years 1969, 1972, 1975, the participation rates of blacks were 7.8 percent, 7.4 percent, and 6.9 percent respectively. Whites in contrast, showed

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[4] "Other" includes American Indian, Oriental, etc., but not Puerto Rican, Mexican American, and other Spanish-speaking groups which are classified as either black or white.

increasing rates of participation, from 10.2 to 11.7 to 12.1 percent. Trend tables show the greatest decline in part-time learning activities for blacks between 35 and 54 years of age. For that age group, the rates of participation in AE for the three-year surveys declined from 8.8 to 6.6 to 6.4 percent, while the rates for whites rose from 11.3 to 13.1 to 13.4 percent.[5]

For those who are committed to social justice and equal educational opportunity, the participation rates of blacks in continuing education is a matter of grave concern. Perhaps a closer look at the data will shed some light on the problem.

The profile of black participants in AE, as compared with whites, would look something like this.[6] Blacks have lower levels of educational attainment (53 percent of whites and 39 percent of blacks have had at least some college), make lower incomes (24 percent of whites and 44 percent of blacks have annual incomes under $10,000), are more likely to be unemployed (4 percent for whites, 10 percent for blacks), are much more likely to live in the central city (25 percent for whites versus 60 percent for blacks), and live in the south (27 percent for whites, 48 percent for blacks).

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[5]It is possible that some of the decline in part-time learning for blacks could be due to a change in the report form for NCES. Until 1975, NCES did not separate out full-time learners for any age group except the 17-34 year olds. Thus, it is possible that the decline in part-time learners for 1975 could be partially a result of pulling out full-time learners. That interpretation, however, would apply only to the decline for 1975, and it would also have to hold true for whites--whose participation rate increased slightly. One possible explanation for the relatively greater decline of black participation could be that opportunities for full-time study increased more for blacks than for whites, but that doesn't seem a probable explanation for the age group (35-54) showing the greatest decrease.

[6]Data for this particular description are from the 1975 preliminary tables of the NCES Triennial Survey. They include persons 17 and over who are not full-time students in high school or college but who were engaged in one or more activities of organized instruction, i.e., adult education (AE).

These statistics demonstrate that black adult learners are disadvantaged relative to white learners. It should be remembered, however, that both black and white learners are advantaged relative to their counterparts in the general population who are not engaged in learning activities. For example, while 44 percent of the black learning participants have incomes under $10,000, 67 percent of the black nonparticipants do. And while 21 percent of the black participants had not graduated from high school, 58 percent of the black nonparticipants were not high school graduates.

It is, of course, well established by this time that socioeconomic indicators are strongly related to participation in educational activities. Low educational attainment, low job status, and low income have a great deal more relationship to educational disadvantagement than race *per se*. If blacks and whites are equated for educational attainment, for example, differential participation rates disappear. In 1972, both blacks and whites with less than a high school diploma had a 4 percent AE participation rate and both blacks and whites with a college degree or more had participation rates of 29 percent (NCES, 1972, p. 9). Nevertheless, the question of access to educational opportunity for ethnic minorities *per se* has been a concern of the nation and of federal agencies, and NCES data permit us to construct a more complete profile of blacks (as opposed to whites and others) than of other groups. Since the profile for black male learners differs somewhat from that for black females, the profiles for black men and women will be presented separately. These profiles, it should be remembered, describe the interests and reactions of adults who *have* gained access to educational resources, albeit not necessarily non-traditional degree programs. As such, they indicate how educational resources *are* serving blacks, not necessarily how they should be.

A Profile of Black Male Participants in AE in 1975

Black men appear to be using educational opportunity largely for upward job mobility. They, more than whites, select courses that will

lead to credit or to skills that will help them to get a new job. They are considerably more likely than white males to be enrolled in courses offered by two-year colleges or vocational schools (43 percent to 26 percent) and in courses leading to licensure or college credit (45 percent to 28 percent). Over half (63 percent) of the black male learners attend their classes in school and college buildings, and 70 percent are doing their learning in traditional class formats presided over by classroom teachers.

A distinctive problem for black males is completion of courses. Whereas 74 percent of whites and 62 percent of black women report completing their courses, only 48 percent of the black men do. It is not so much a matter of dropping courses as of reporting courses still in progress (46 percent for black men, 29 percent for black women, and 25 percent for white men and women). When black men do drop courses (about 9 percent do), their problems, more than those of whites, seem to be related to job and family situations. Financial problems, care of family members, and job changes are more likely to plague blacks than whites, but black males seem to offer relatively more individualistic reasons for dropping courses; almost one-fourth of them gave reasons that were classified as "other" compared to 16 percent for white males and females, and 18 percent for black females.

A Profile for Black Female Participants in AE in 1975

Black females, more than black males or whites, seem to be pursuing rather traditional courses in the regular school system. They are much more likely than the other groups categorized by NCES to be taking "general education" courses (44 percent compared to 28 percent for black males to 22 percent and 17 percent for white females and males respectively), and likely to be overrepresented in adult basic education, high school, college, and postgraduate courses for credit. It appears that black women are making good use of financial aid programs since over a third (35 percent) are paying for their courses with public funding (versus 28 percent of black males, 18 percent of white males, and 14 percent of white females).

Their reasons for continuing their education are basically job-related and they are much less likely than white women to be taking so-called "luxury" courses in social life and recreation (3 percent to 24 percent), or courses in community issues (5 percent to 11 percent), or personal and family living (9 percent to 29 percent).

The drop rates for black females are a little higher than for the average adult learner (11 percent to 7 percent) but dissatisfaction with educational program seems not to be a major cause. They are less likely than whites to drop courses because they are disappointing or too demanding (13 percent to about 26 percent for white males and females), and 62 percent rate their courses more helpful than expected. The causes of dropouts for black women seem to be related to situational factors such as change in job or residence or care of family and children.

Other Data and Summary

Although almost anyone conducting "needs assessments" of adult learners collects information about race, very few make much use of it except to support the general conclusion that ethnic minorities are educationally disadvantaged with respect to access to a variety of educational opportunities.

Data from the national survey of the Commission on Non-Traditional Study (CNS, 1974) supports the general observations made from the NCES data, reinforcing the findings that non-traditional sponsors and forms of education are used more often by whites than by blacks. Whereas blacks tend to use publicly financed programs of continuing education, white males tend to be overrepresented in learning sponsored by employers, unions, and professional associations, and white women predominate in the educational programs of community and private organizations. Similarly, the CNS data show that blacks are somewhat more likely to favor traditionally oriented class groups for instruction, whereas whites use a wider range of instructional methods including independent study and private lessons. The California survey (1975)

found Mexican-Americans significantly less likely to be interested in independent study or televised instruction than either blacks or whites.

The warning note in these findings is that any temptation to cut back on public funding for adult programs sponsored by educational institutions will probably increase the growing educational gap between ethnic minority and Caucasian adult learners. But since it is also true that more self-confident and better educated learners tend to respond to a wider range of delivery methods, there is much to be said for providing alternatives and to providing the guidance and help that will aid minorities in the utilization of the full range of options.

B. AGE

Participation and interest in organized educational activities are clear functions of age. Interest, as well as participation, starts to decline in the early 30s and drops sharply after age 55. Summarizing data across a variety of state and national studies, it is safe to conclude that no more than 10 percent of adults over the age of 55 are currently participating in AE activities (California, 1975, CNS, 1974; Iowa, 1976; NCES, 1972). In the two recent national studies, the decline of interest is gradual until age 55 when it drops off sharply. In CNS data, the drop is from a 20 percent participation rate for learners in the 35-54 age bracket to 8 percent for those 55 and older. In the more conservative NCES data on participation rates, the drop off is from 12.5 to 3.5 percent for the same two contiguous age groups.

Some of the declining interest in education with age can probably be attributed to the educational attainment factor that is so pervasive in influencing participation in continued education. It is quite clear from all of the research that the more education people have the more they want,[7] and because educational opportunity

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[7] See discussion on pp. 28-33 regarding educational attainment.

has been increasing rapidly, younger people are more highly educated than older generations. For example, in 1940 when most 55 year-olds would have been graduating from high school, only half of the age group were completing high school whereas today three-fourths of the population complete high school. But other factors that probably have some bearing on the declining participation of older people in educational activities are lack of motivation for career success, (which so dominates the motivations of young people), and declining energy and mobility.

The tabulation below, taken from California data (1975) shows, in the columns from left to right, the decreasing interest in education as a function of age, increasing convictions that advancing age is a barrier to learning, and increasing proportions of people who say that they are not interested in any counseling or instructional services to help them participate in educational activities.

Age	Interest	Too old	No services desired
18-29	83%	2%	20%
30-39	69	2	28
40-49	60	7	40
50-59	48	11	44
60 and over	20	14	73

National data (CNS and NCES) show those 55 and older to be less interested than younger people in vocational and career subjects and more interested in hobbies and the use of leisure time. California data (1975) showed, for example, that one out of three potential learners 60 or older were interested in learning arts and crafts. The humanities are also a strong interest of older people, not for credit, but for personal satisfaction and cultural enrichment.

Virtually all studies show the steady decline of interest in credit or certification with advancing age. Data from the Central New York study (Russell, undated) are illustrative:

Age	Formal recognition desired
18-25	67%
26-35	55
36-50	38
50 and over	24

Older people express the need for and interest in non-traditional methods of delivery. In both CNS and NCES data, classes and lectures rate lower in utilization and interest for older than for younger people. Lack of mobility of older learners presents a conflict. While almost half of those over 60 in the California study said that a primary motivation for their participation in AE was to meet new people, they are overrepresented in most forms of "lonely" learning. They are overrepresented among those studying independently via TV, radio, or private lessons (NCES, 1972). Correspondence study, however, is not popular among older citizens, possibly because so much of it is vocationally oriented.

The use of and interest in private tutors by older learners shows up in most of the studies and points up the problem of the declining purchasing power plus desire for companionship of senior citizens lacking mobility. While those 55 and older make up 8.7 percent of the participants in AE, they constitute 12.1 percent of those learning from private lessons (NCES, 1972). California data (1975) showed that one out of five senior citizens over 60 say that private lessons would be a good way for them to learn; that was the largest proportion of any age group interested in the use of tutors. At the same time, persons over 60 are more likely than any other age group to say that they cannot afford to pay anything toward the cost of educational activities (California, 1975).

Because age, especially 55 and older, is clearly a barrier to educational participation, we have presented this profile for older learners. The NCES tables for 1972, however, provide an opportunity to discuss the relationship between age and learning preferences

across the spectrum of AE. The following observations are selected items of interest:

- Younger people (17-34) and older people (55 and older) are disproportionately respresented in general education courses,[8] with younger people taking standard academic subjects and the older group overrepresented in adult basic education courses.

- Younger learners (17-34) are underrepresented in courses on community issues, whereas after age 35 interest increases with age group.

- Learners in the 25-34 year bracket and those over 55 are overrepresented in social and recreational learning.

- Those 17-24 are especially likely to take courses that will help them get a new job, whereas those 25-34 are seeking advancement in a current job, or social and recreational activities. Older persons (45 and over) are overrepresented among those pursuing community and family interests and social and recreational learning.

- With respect to methods, 17-24 year-old learners are overrepresented in organized training on the job, 25-34 year olds in correspondence study, 35-44 year olds in workshops and discussion groups, 45-54 year olds in lecture series and TV and radio, and those over 55 in TV and radio learning. But for all age groups lectures and workshops are generally the most popular methods for learning.

- Young learners (17-24) are overrepresented among those receiving public funding, 35-54 year olds are dispropor-

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[8] By "disproportionately represented" we mean, for example, that whereas 17-24 year olds constitute 22 percent of the AE participants, they make up 33 percent of those enrolled in general education courses. That does not necessarily mean that general education courses are the most popular form of education for 17-24 year olds. Most NCES data presentations give the former but not the latter tabulation.

tionately in employer-funded programs, and learners 35 and over are overrepresented among those benefitting from funding supplied by private organizations.

- Young learners are substantially overrepresented in two-year colleges and private trade schools, 25-34 year olds are overrepresented in four-year college and university offerings, 35-44 year olds in education sponsored by labor organizations and professional associations, and those 55 and over in the educational offerings of community organizations and private tutors.

Conclusions and Implications

It is quite clear from the data that age is an educationally relevant variable, following quite logically along the developmental stages of adults. Younger people tend to be pursuing general education, gaining the credentials and laying the general groundwork for later career specialization. Those in the age ranges of 25 to 44 are concentrating largely on career advancement, whereas those 45 and over are beginning to prepare for the use of leisure time. The data strongly support the policy analysis of Best and Stern (1976). In a presentation to the Monthly Dialogue on Lifelong Learning, they documented the existence of the "linear life plan" in which work is increasingly compressed into the middle years of life, while nonwork time increases--sometimes undesirably--for young people (in the form of full-time education) and for older people (in the form of retirement). They see grave problems ahead if this trend is allowed to continue, and they suggest that "our society should begin to consider the new alternative of more cyclic life patterns" (p. 54). This approach would encourage mid-career people to leave their jobs temporarily to engage in leisure, education, or community service activities, and it would have the effect of redistributing education, work, and leisure more equitably across an individual's life span and across society's age groups. Were our society to move toward more cyclic life patterns, it would change people's perceptions about when and what to study, and it would

change the age profile of learners presented here. For the most part, these data depict what does exist in the behavior and attitudes of people, not what would be ideal. There is some slight evidence, however, that attitudes are changing. NCES data show that the proportion of persons 55 or older participating in AE moved from 2.9 to 3.5 to 4.0 percent for 1969, 1972, and 1975 respectively. In fact, certain educational opportunities for persons over 55 may be rising at least as fast as the interest of older adults in educational pursuits. A very recent ACE survey of educational programs for adults 55 and older (Atelsek & Gomberg, 1977) showed that over half of the public two-year colleges and universities surveyed offer instructional programs specifically designed for older adults--courses geared toward a second career, preretirement courses, self-improvement or leisure time courses, short-term residential courses. Public four-year colleges and private institutions of all types were less likely to offer special programs and services for older adults.

Community service programs for older adults (special tuition plans, library privileges, recreational programs, etc.) were also common in public institutions, with 70 percent of the public community colleges and 61 percent of the public universities providing some form of service programs. Apparently the services to older adults are successful. Almost half of the institutions reporting special programs and services are planning to increase the scope of their efforts, whereas only 19 percent of those without such programs are planning to institute them.

C. SEX

Men and women participate in AE activities at about the same rate, 11.7 percent for men and 11.6 percent for women (NCES, 1975); or to put it another way, 49 percent of AE participants are men and 51 percent are women (CNS, 1974). There is some indication, however, that women would like to participate more than they do. The CNS (1974)

survey found that whereas 51 percent of the actual learners were women, 54 percent of those who expressed an interest in further education were women. But women do seem to be taking advantage of new opportunities. NCES data indicate that women part-time learners are increasing more rapidly than men. The AE participation rates for men have remained quite steady over the nine years of the Triennial Surveys at 11.2 in 1969, 11.9 in 1972, and 11.7 in 1975. For women, participation rates have risen steadily, from 9.0 to 10.8 to 11.6 for 1969, 1972, and 1975 respectively. Table 2 shows the proportion of eligible men and women of three age groups reporting AE activity in the three Triennial Surveys.

Table 2

Participation Rates of Women and Men in Adult Education Activities by Age

Women

Age	1969	1972	1975
17-34	12.3	15.0	16.0
35-54	10.4	12.0	12.9
55+	3.2	3.9	4.3
Total	9.0	10.8	11.6

Men

17-34	16.8	16.9	16.0
35-54	11.8	13.1	12.5
55+	2.5	3.0	3.6
Total	11.2	11.9	11.7

Source: NCES data, 1969, 1972, 1975.

Women at all age levels have caught up with men in educational participation. Younger women (17-34) have closed the rather substantial gap that existed in 1969; middle-aged women have come from behind to surpass men in 1975, and older women (55 and older) have retained their lead.

For women, even more than for men, prior education stimulates further participation in AE. The latest NCES figures (1975) indicate that 24 percent of women with some college experience are AE participants compared to 21 percent of college-educated men. Table 3 shows participation rates for men and women by highest level of schooling completed.

Table 3

Participation Rates of Men and Women in Adult Education Activities by Highest Level of School Completed

Educational attainment	Men	Women	Total
Elementary (0-8)	2.1	1.9	2.0
High school (1-3)	4.3	4.8	4.6
High school graduate	12.2	11.7	11.9
College (1-3)	16.8	18.3	17.6
College graduate	24.3	30.0	27.0
Postgraduate	27.3	36.1	30.4

Source: NCES, 1975

Table 3 shows that as the level of educational attainment increases women tend to pull farther and farther ahead of men in the rate of participation in AE activities. The explanation probably lies in the fact that advanced education is still a more unusual accomplishment for women than for men, and that the additional motivation of highly educated women is reflected in the AE statistics.

The profile of the "typical" woman engaged in AE may demonstrate, as well as analysis by any other demographic characteristic, the necessity for designing evaluation studies that are linked to learner needs. While population descriptors are easily obtained and frequently available as statistical data, they are not necessarily educationally relevant, nor can they be made so without constructing a profile of learner needs. It would be difficult to find even a demographically narrowly defined group, e.g., black urban women over 25,

that presented a homogeneous educational needs profile. For example, the question, how well does an educational program serve black urban women over 25, is not answerable until we know past educational attainments, goals and aspirations, scheduling demands, preferred methods of study, etc. One might better ask a question such as the following: How well does an educational program serve those with a high school education who would like to get out of a dead-end job into a career, and who have a strong need for social reenforcement in the learning process? Whether these persons are male or female, black or white, urban or rural, may have some bearing on the educational needs profile, but it will be very difficult to design and evaluate educational programs for so-called "target" groups if the targeting is based primarily or solely on demographic characteristics.

As we have said before, *access* to educational opportunity is a different matter. Access is related to demographic statistics because discrimination in the society and in education has been based on factors such as race, sex, and age. But even access is a difficult question to answer since the implied question is always access of one group relative to what other group--women compared to men? Haves compared to have nots? Attainment compared to aspirations? If we simply wish to describe the characteristics and interests of the typical woman participant in AE activities, we then get the profile of Ms. Average American Woman. The profile of the woman most commonly found in AE looks like the profile of the woman most commonly found in America. In one sense, this is simply to affirm that adult educational activities serve the broad spectrum of American women. Taking the largest *volume* of female learners from NCES 1975 data, the profile looks like this:

The most common adult female part-time learner is white, a high school graduate without college experience, working less than 10 hours per week (but almost as many are working more than 35 hours). She works at a clerical job and is pursuing occupational training in order to advance in her current job. She is also highly likely to be engaged in learning things that are useful to her as a wife and mother. The

money for her education comes from family savings, and four-year colleges and universities are the single most common sponsors of her classes, although large numbers also attend classes sponsored by the public schools, two-year colleges, and community organizations. She is taking mostly noncredit courses and evaluates her experience as helpful.

If we rephrase the question now to address the issue of *relative* access to educational opportunity, we then get a profile of women who are participating in AE at a rate exceeding their numbers in the population. That profile would give the well-known privileged-class syndrome--white, well-educated, frequently a teacher taking professional or extension courses from fairly traditional colleges in order to help on the job or in raising a family.

Another way to look at a profile of women learners is to contrast their participation and interests with those of men. In this comparison the femal profile looks like this (NCES, 1975):

She is better educated than her male counterpart, more likely to be taking courses for credit and less likely to be vocationally oriented. White women, but not black, are much more likely than men to be pursuing education for social and recreational reasons or for personal and family use. They are more likely than men to stick to traditional educational systems and traditional classes and lectures, or to education offered by community agencies. They are less likely than men to participate in employer-sponsored training or correspondence courses. Money for their education is likely to come from family savings (68 percent and 46 percent for white females and males respectively, and 44 percent and 38 percent for black females and males). In noncredit courses, women are more likely to take courses that are not job related, whereas men are more often found in noncredit job-related education. Women tend to evaluate their courses higher than men, but they are more likely to drop a course, citing family responsibilities as a causal factor somewhat more frequently than men.

Summary and Conclusions

Women are closing the educational gap between men and women in both part-time and full-time study. Thus we can conclude that so far as access is concerned, non-traditional education has improved its service to women in recent years. There are still some areas of inequity, however, between educational opportunity for men and for women. Employer-sponsored programs, for example, are still relatively closed to women, with men's participation rate of 21 percent double that of women at 10 percent (NCES, 1975). Furthermore, employee organizations such as unions and professional associations do not balance the inequity with respect to the most highly job-related education; men are twice as likely as women to gain access to courses sponsored by labor unions and professional associations.

Another difficulty in educational access for women is related to the whole financial question, which shows women much more likely to be paying for their own education; but once again the principal disparity occurs in employer-funded programs where men are about twice as likely to obtain funding as women. There are not big disparities between men and women in public financing or in funding from private organizations. Nevertheless, women consistently report more concern over the cost of education. Their distress is in part related to their attitudes about using family savings for their education. But it is also true that at any income level men are more likely than women to collect reimbursement from employers and from military service.

The conclusion from examination of the data is clear: The backgrounds, needs, and aspirations of women are so diverse that there is really no homogeneous needs profile that pertains to women, or even to more restrictively defined demographic groups such as "urban black women over the age of 25." It would appear more useful to develop needs profiles for people with common educational needs and aspirations, taking into consideration the unique needs of certain groups of women, e.g., the need for child care, for reentry orientation, for convenient locations, etc.

D. EDUCATIONAL ATTAINMENT

Of all the descriptors of learners, educational attainment is probably more closely related to the interests, motivations, and participation of adult learners than any other single characteristic. This observation is consistent across a great variety of studies and is responsible for predictions that adult education will continue to rise as the educational attainment of the populace rises. It is demonstrably true that people with more education want more and get more. Shown below are the 1975 NCES and 1972 CNS statistics for AE participation rates of adult part-time learners over the age of 17 by highest level of prior education.

Table 4

Participation Rates in Adult Education Activities by Highest Level of Prior Education.

Highest level of prior education	Percent participating in adult education	
	1972 CNS	NCES 1975
Elementary school (0-8 years)	10	2.0
High school (1-3 years)	20	4.6
High school graduate (4 years)	31	11.9
College (1-3 years)	48	17.6
College graduate (4 years)	57	27.0
Advanced study	57	32.7
Average	31	11.6

Sources: CNS, 1974; NCES, 1975.

Although the CNS survey found a higher overall rate of participation than NCES, the patterns are similar and show a clear increase in participation in AE with increasing educational attainment. Similarly the pattern of *interest* expressed by those who are called "would-be" learners by CNS is also one of clear step-wise progression with increased educational attainment. Clearly, those with less than a high school diploma (39 percent of the population 25 or older in 1972) are underrepresented in continuing education activities. Because this project is concerned primarily with postsecondary education, we shall focus our discussion on degree-eligible populations, comparing the relatively low rate of participation of high school graduates to those with college experience.

Approximately 39 percent of adults over 17 in the United States are high school graduates who have not entered college. Whether CNS or NCES figures are used, the AE participation rates of high school graduates are very close to the national average.

Preliminary data from the NCES 1975 survey is not yet available in a format that permits us to do much more than describe participation rates. The 1972 NCES data plus the 1972 CNS data, however, do permit us to present a profile of the participant in AE whose highest prior level of education is graduation from high school.

More females (55.5 percent) than males (44.5 percent) participate, and half report family incomes of from $7500 to $15,000 per year. A majority of these learners are clustered in occupations designated as clerical, craftsmen, operatives, and service workers (NCES, 1972).

Learner interests, as a function of past educational attainment, show that educational choices follow predictable patterns. High school graduates without college experience tend to select vocational and technical courses and courses on community issues, whereas those with some college courses already to their credit are overrepresented among those taking general academic courses. The better educated (and higher income) groups are also more likely than less well-educated learners to take the so-called luxury courses in social and recreational education and in personal development.

Consistent with the subjects elected by high school graduates are their choices regarding methods of education. Those with college experience are overrepresented in lectures, workshops, and TV courses, whereas high school graduates without college experience favor on-the-job training and, interestingly, are substantially overrepresented in correspondence courses. Whereas those whose highest level of educational attainment is high school graduation make up 38 percent of adult learners, they constitute 49 percent of those enrolled in correspondence study (NCES, 1972).

There is no surprise in data showing that high school graduates without college experience tend to predominate in courses sponsored by two-year colleges, trade schools, and employers, whereas college-educated learners are overrepresented in courses sponsored by four-year colleges and professional associations. Similarly, it is clear that the recognition accorded is likely to be skill certification for high school graduates and degree credit for those with some college. Most learners--58 percent according to NCES (1972) and 61 percent according to CNS (1974)--received no credit or recognition for AE activities. But the CNS survey indicated that people would like more recognition than they presently receive. While 39 percent of the learners got some form of certification, 68 percent of the would-be learners indicated an interest. However, recognition need not be in the form of degrees or academic credit; in fact, the greatest discrepancy between credit received and credit desired seems to occur over the matter of skill certification, where 7 percent of the learners received recognition and 20 percent of would-be learners expressed an interest in it (CNS, 1974). It seems obvious that if a learner's reason for taking a course is to get a job or be promoted (which it is for most high school graduates) he or she will want something that the employer will recognize--if not the skills then at least a certification of course completion.

But completion of coursework seems to be a direct function of educational attainment. High school graduates without college experience contribute more than their share to the dropout statistics. Whereas the overall dropout rate among adult part-time learners was 10 percent in 1972, those with only high school diplomas showed a dropout rate of 16 percent compared to 6 percent for those with college experience (NCES, 1972). The high school graduate group has a disproportionately high incidence of not reporting the reasons for dropping a course, but when reasons are reported, inconvenient locations and disappointing or demanding courses play a prominent role.

The relatively high dropout rates of high school graduates compared with those with some college experience leads some to hypothesize that less well-educated learners are less motivated learners. The hypothesis of less motivation for those who have not advanced as far (been less successful?) in the traditional school system is supported by the findings of the California study (1975) which found that when people were asked how much time was available for learning, 61 percent of the high school dropouts reported they could devote no more than nine hours a week to their studies compared to 45 percent of the college graduates. Yet high school dropouts are less likely to be fully employed or engaged in professional and technical occupations which frequently require time beyond the eight-to-five work day. Furthermore, problems with low grades, enjoyment of study, and feeling too old to learn are cited more frequently by those having less education. More highly educated respondents, on the other hand, are more troubled by lack of time and job responsibilities. As Rubenson (1977) points out, studies of recurrent education throughout the world have overemphasized external environmental barriers (finances, opportunity, time, etc.) at the expense of greater study of psychological impediments (self-confidence, level of aspiration, etc.).

Conclusions and Implications

As one becomes immersed in the data characterizing the various populations of learners and potential learners, it becomes quite clear that in the data of "prior educational attainment" lies much of the information that would be helpful in understanding the needs and motivations of adult learners. Educational attainment is a clear index to participation in AE. Not surprisingly, an adult's past experiences with education has a lot to do with whether he or she wants more. Those who have been successful and happy in traditional education and have pursued it to high levels seek more of the same. Furthermore, those who have done well in lectures and class discussions tend to seek a continuation of those experiences, whereas those who have

not done well in those formats prefer something else, such as on-the-job training or correspondence study. It is also apparent that those who went farthest in the system are likely to be the most successful and self-confident learners. As such, they are demonstrably more open to a greater variety of methods and courses than less well-educated adults who express continuing self-doubts about their ability to learn.

One can argue that the greater and broader interests of highly educated adults are due to the class status that affords them the luxury of education for recreation and personal development. In light of the overall picture presented in the data, an equally persuasive argument can be made that less well-educated adults have not had the kind of educational experiences in the traditional system that would make them want to seek education beyond what is necessary to get ahead on the job or handle the practical matters of living.

In short, while the interest profiles of adults with limited formal education suggest practical and concrete courses with clear and immediate rewards, we should also note that the "need" of most people is to experience satisfaction and success in learning. Most comfortably for the educational establishment, this means that alternatives are necessary in order to accommodate the needs of diverse populations of learners. But more uncomfortably, it raises the troublesome question of evaluation of non-traditional education. How does one evaluate a course with "high" standards that makes some learners clearly successful and others clearly unsuccessful? How the learners feel about themselves and their capacities for future learning is surely an important consideration in the evaluation of any voluntary system of education. Noncredit adult education is not obligated to weed out the less successful (by external standards) learners. That may be one reason for its spectacular growth.

One recommendation for further studies arises out of this analysis of the role of prior educational attainment. Past education is a descriptor that is easy to obtain and is, in fact, routinely collected

in almost all studies of learner characteristics. It is, however, not often given the comprehensive analysis it deserves in the study reports. Many present studies could profitably reanalyze their data and take a more careful look at the role of past educational attainment in the educational needs and interests of non-traditional learners. In addition, however, we need new data and more in-depth studies to provide a better understanding of the impact of past educational experiences on attitudes and interests.

E. GEOGRAPHIC BARRIERS TO ACCESS

National and statewide studies of participation and interest in adult learning show considerable variation by geographical region (see Table 1). For example, educational opportunity is widely conceded to be greater in the western states than anywhere else in the country. In the 1975 NCES data, the rate of participation in adult education in the western states[9] was significantly above the national average--16.6 percent compared with 11.6 percent nationally. Furthermore, the West was the only one of the four Census Bureau regions to show above-average participation rates in *all* categories of population density--cities, suburbs, towns, and rural areas. In Willingham's (1970) study of access to postsecondary education, he wrote:

> The West is far ahead of other regions with respect to the number of free-access institutions and the proportion of all entering students enrolled in them. But this is well known and need not be lingered over. (p. 25)

But for our purposes it may be interesting to linger over regional differences to see if we can ferret out some of the causes.

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[9]The states included in the Census Bureau's category of the western region were: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Oregon, Utah, Washington, and Wyoming.

Data collected for the National Commission on Non-Traditional Study (CNS, 1974) show that westerners not only participate in learning activities more than residents of other regions, but nonparticipants also evidence somewhat greater interest in learning than their counterparts in other regions of the country. The difference is especially well illustrated in the state studies of California (1975) and Iowa (1976) because these two studies used essentially the same interview questions.

In California, 59 percent of adults interviewed said they were interested in participating in further learning beyond high school within the next two years. In Iowa, only 36 percent indicated similar interests. The difference showed up again when prospective learners were asked which of 12 noninstructional services (counseling, assessment, credit-registry, etc.) would interest them. Fifty percent of Iowans compared with 15 percent of Californians said they were not interested in any of them. Similarly, 31 percent of Iowans but only 5 percent of Californians said they were "no longer interested in formal schooling." One can conclude from these figures that California presents a more positive climate for learning than Iowa does.

A number of hypotheses could be advanced for the differences in expressed interest and participation in further education on the part of Iowans versus Californians. Educational accessibility has an obvious and demonstrated impact on participation rates (Bashaw, 1965; Bishop & Van Dyk, 1977; Koos, 1944; Trent & Medsker, 1965). Willingham (1970) showed that 60 percent of Californians but only 39 percent of Iowans live within a 45-minute commute of a free-access college.[10] Since the Iowa analysis of educational resources found

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[10]Willingham's criteria for a free-access college are that it charge no more than $400 annual tuition, at least one-third of the freshman class be composed of students who graduated in the lower half of their high school class, and that the college be within 45 minutes commuting time from the students' homes.

that 82 percent of the programs for nontraditional learners used traditional classroom lectures as their principle mode of learning, commuting distance is a matter of considerable significance. It should be interesting to observe the impact of the new media delivery systems of the University of Mid-America on the rates of educational participation in Iowa.

Differences between Iowa and California residents lay, however, not only in *participation* rates but also in expressed *interest*. Why should Californians be so much more interested than Iowans in further education? One possible explanation lies in the consistent research finding that the more education people have the more they want. If the level of educational attainment is significantly higher in California that fact may constitute an explanation. National figures for median educational attainment of adults 25 years and older show 12.2 for Iowans and 12.4 for Californians--not a great difference (Grant & Lind, 1976). However, the difference may lie in expectations regarding *postsecondary* education. Although the high school graduation rate is as high for Iowans as for Californians, college attendance in California is higher. Of the adult population in California 30 percent have had some college, while only 20 percent have in Iowa (Grant & Lind, 1976). Many Californians get some college work through part-time study. Hamilton (1976) reported huge differences in part-time college study--53 percent for California compared with 17 percent for Iowa. This difference no doubt reflects the profusion of free-access community colleges in California.

In the absence of social intervention, we would expect regional disparities to increase as those with greater access to education become better educated and show greater interest and make greater demands for educational opportunties and services. Regional differences in access vary widely. Willingham (1970) reported that the percentage of new freshmen enrolled in free-access colleges was 71 percent for the West, 50 percent for the South, 34 percent for the Midwest, and 22 percent for the Northeast. While Willingham was looking at

traditional institutions, the NCES data on adult learning tells much the same story. Participation is greatest in the West (16.6) and lowest in the Northeast (10.0) and the best guess is that, in the absence of public policy, these differences will increase.

Much the same kind of analysis can be made with respect to variations based on population density. Table 1 shows participation rates in adult education activities in 1975 by metropolitan status. Clearly, people living in suburban areas are more likely to participate in educational activities than those living in areas of sparse population or in the dense populations of central cities. Farm areas are clearly disadvantaged, with a participation rate of only 6.7 percent compared with 11.6 percent nationally.

Once again, Willingham's analysis of access to colleges would seem related to these findings regarding participation in adult education. He found that 63 percent of the people residing in small cities (population 50,000 to 250,000) lived within a 45-minute commute of a free-access college, whereas only 24 percent of rural residents are so conveniently located. Central city residents fall in between with 38 percent of the population facing a 45-minute or less commute to a free-access college.

A few words about the lack of college access in some of the most densely populated areas may be in order. One can hope that improvements have been made since 1970 when Willingham's analysis was completed, but at that time he noted that "suburban colleges are almost twice as likely to be free-access despite the pressing social problems in the central cities" (p. 27). Furthermore, he found six metropolitan areas with populations larger than one million that had no free-access institution at all in the central city.

Policy implications in these analyses seem fairly clear. The opportunities for participation in continuing education are relatively limited in sparsely-populated areas and in the central cities. While the central city problems of access might be alleviated fairly easily

by creating additional off-campus learning centers, access in rural areas may await the development of more sophisticated delivery systems combined with adequate information and counseling services. Although there are admittedly other factors (such as lower educational attainment, lower SES, etc.) that contribute to low rates of participation and interest of rural and inner-city populations, access is a fundamental requirement that would appear to precede interest and favorable attitudes toward continued learning.

F. CONCLUSIONS AND NEXT STEPS

A comprehensive overview of the role of demographic variables in adult education has been presented. Although the Triennial Surveys of NCES (1969, 1972, 1975) are generally conceded to be conservative with respect to the number of adults participating in organized learning activities, the *patterns* revealed in NCES data are confirmed by other studies. Indeed, there are few surprises and few inconsistencies in the demographic data presented by state, national, and even international studies.

We can be quite confident in stating that the following populations are underrepresented among the participants in adult education: ethnic minorities, senior citizens, those with less than a high school diploma, those with incomes under $10,000, those living in areas of dense population (central cities) or sparse population (rural areas), and those living in the Northeast or South.

The causes for the low participation rates of these groups are multiple, but the most influential of the descriptive demographic variables seems to be educational attainment--which is itself a complex variable reflecting motivation, opportunity, interest, income, ability, etc. Clearly, the more education people have the more they want and the more they get. In the absence of any social policy to the contrary, the education gap between the haves and the have nots will increase in any system of voluntary education simply because the haves will continue their forward momentum.

Most of the practical knowledge gained through an analysis of which populations are disadvantaged with respect to adult education opportunities comes from logical inferences about motivations underlying the situations in which various population groups find themselves. Women, for example, constitute a growing segment of AE because formal education is now useful in the job market; blacks are interested in degrees or other forms of formal recognition because credentials are essential for upward mobility; senior citizens are not much interested in degrees because at their stage of life a degree brings no rewards except possibly personal satisfaction, and so it goes. Taken collectively, explanatory inferences add something to our understanding of the dynamics of educational opportunity as a function of social environments.

It is our conclusion, however, that except for monitoring the nation's progress with respect to social justice--one important index of which is educational participation--little progress will be made by further collection and analysis of the kind of demographic descriptors summarized here. What is needed is a much more complex analysis of educationally-relevant variables and the creation of some theoretical models that will help to *explain* (as opposed to simply describe) educational participation. Speaking of the progress of countries throughout the world in this respect, Rubenson (1977) rightly observes that

> Studies have been mainly concerned with describing who takes part in adult education, particularly with regard to different statistical background factors such as age, education and social status. . . . Research so far has neither yeidled new points of inquiry, confirmed uncertain findings nor developed new methods. In fact the investigations which have dealt with participation in adult education have been of strikingly little interdisciplinary importance. (p. 3)

While *research* probing the understanding of non-traditional learners and their needs is a considerably broader undertaking than the design of an evaluation study addressing the question of how well

non-traditional programs are meeting the needs of learners, the ultimate goal of both research and evaluation is program improvement. That goal seems to us to require more sophisticated understandings of the dynamic processes at work in adult learning.

The next section of this paper will move us one small step closer to answering the evaluation question, How well are educational opportunities meeting the *needs* of non-traditional learners? Our objective in this section is to summarize across a rather rich array of recent state, regional, and national "needs assessments" in order to: 1) develop a taxonomy of learner needs, and 2) to synthesize what is known from these studies about the needs of adult part-time learners. Most of the data come from asking learners and potential or would-be learners about their needs and interests. As with the demographic analyses, the findings are generally in broad agreement, and we certainly know by now a great deal about what adults <u>say</u> they want in terms of educational opportunities.

III. A PROFILE OF LEARNER NEEDS

The most common method for arriving at a catalogue of the needs of learners has been to ask adults who are participating in adult learning activities and those who say they would like to participate (would-be learners) what they want and need. Within the last couple of years, "needs assessments" have become a virtual fad for state planning agencies. Large numbers of adults throughout the country have been polled regarding their interests in further education, and we now have a great deal of data about certain dimensions of learner needs. Major studies completed within the last five years are described in Appendices A and B. The variables investigated are strikingly similar from study to study. This permits us to develop a catalogue of the needs and interests of adult learners, at least insofar as they have been identified by the designers of needs assessments.

Chart A has been constructed from two sources. The left-hand column, labeled *Learner Needs*, contains the common variables used in state assessments to study the needs of adult part-time learners. The right-hand column, labeled *Program Responses* consists of the components or special features of non-traditional programs that have been developed in response to learner needs. We believe that this taxonomy of non-traditional education is both complete and parsimonious. We did not find needs identified in state studies that had received no response from program developers, nor did we find extraneous program components that seemed to respond to no need.

Chart A

PROGRAM RESPONSES TO LEARNER NEEDS

Learner needs	Program responses
I. ADMINISTRATIVE ACCOMMODATIONS	
A. Need for alternate schedules	A. Provision of alternate scheduling 1. Traditional daytime 2. Evening 3. Commuter block scheduling (e.g., weekends) 4. Residential block scheduling (e.g., several meetings per year) 5. Self-paced within a term 6. Student-determined entirely 7. Other
B. Need for access to learning locations	B. Provision of convenient locations 1. On campus 2. Off campus a. community b. work site c. home d. other 3. Student determined
II. TEACHING/LEARNING CONSIDERATIONS	
A. Need for appropriate learning methods and delivery of education	A. Provision of alternate instructional methods and delivery mechanisms 1. Distance teaching/independent study 2. Instructional materials/devices-based instruction 3. Directed individual study 4. Directed experiential learning 5. Classroom 6. Seminar/workshop 7. Laboratory 8. Assembly 9. Mass media instruction 10. Nondirected experiential learning
B. Motives for learning/ Need for content appropriate to goals	B. Content/curricular options 1. Primarily student determined 2. Primarily sponsor determined a. general academic b. adult liberal learning c. occupational/professional d. other

Chart A (continued)

Learner needs	Program responses
III. STUDENT SERVICES	
A. Need for financial assistance	A. Financial assistance 1. Traditional loans, grants, scholarships 2. Employer contributions 3. Employer sponsorship 4. Free tuition
B. Need for information, guidance, advocacy	B. Provision of brokerage and counseling services 1. Information about educational and career opportunities 2. Assessment of student interests & abilities 3. Assistance in matching learner desires with educational opportunities 4. Recruitment of underserved populations through outreach 5. Advocacy
C. Need for orientation to adult learning	C. Provision of orientation programs 1. Establishing or reestablishing academic skills 2. Creating positive learner attitudes 3. Development of educational plans
IV. MEASUREMENT OF EDUCATIONAL ACCOMPLISHMENTS	
A. Need for recognition and certification of non-traditional educational accomplishments	A. Recognition of non-traditional learning 1. Credit by examination 2. Certification of non-collegiate courses 3. Assessment of experiential learning a. prior learning b. sponsored learning
B. Need for recognition of traditional learning	B. Traditional crediting procedures

At this particular stage in the development of non-traditional education, we believe that a more accurate and concise description of non-traditional programs can be obtained through the use of the component descriptors shown in Chart A than through the "typologies" of students and programs used in the past. With further study, however, it seems possible to develop program typologies through a grouping of programs with similar profiles of components.

Past typologies of learners have consisted largely of demographically described groups such as women, ethnic minorities, senior citizens, etc. As we have seen in the previous section of this report, demographic groupings inevitably show more variation of learning needs and interests *within* categories than between them. The problem of making program evaluations and decisions on the basis of convenient statistical groupings is especially serious as we move into planning for the enormous diversity of backgrounds and goals represented by *adult* learners. Knox (1977) has written that "statistical evidence indicates that at least through the first six decades of life, as people grow older, they become increasingly different from each other" (p. 11). We could probably add that as non-traditional programs respond to this diversity they grow increasingly diverse. Thus it seems the time has come to look at profiles of learner needs and profiles of program responses rather than at demographic groupings of people and typologies of programs.

This section summarizes the findings across studies with respect to learner needs. Section IV describes illustrative responses of educational programs to the needs of non-traditional learners. The following discussion sections are keyed to Chart A.

I. Administrative Accommodations

A. *Needs for Alternative Schedules*

Because most adults have job or home responsibilities, adult learners require study schedules that do not interfere with these responsibilities. Most adults can spend, at most, only 10-15 hours

per week on studying (Central New York, 1975; Iowa, 1976; Ontario, 1976), yet most traditional educational programs are geared toward full-time students. Nor can most adults learn during the typical work-day hours when most traditional programs are offered. The scheduling of courses at times when they cannot attend is named as a barrier to learning by 25 percent of potential learners in California (1975) and 16 percent nationwide (CNS, 1974).

A majority, or near majority, of potential learners prefer evening study schedules--presumably because evening study does not interfere with their work schedules (Colorado, 1975; Iowa, 1976; New York, 1977); this reflects the fact that educationally and economically advantaged adults are more likely than other adults to find job responsibilities to be obstacles to their participation in learning activities.

A substantial minority of potential learners, however, prefer daytime schedules. This is especially true for those not in the labor market, such as retired persons and women with school-age children. Two-thirds of those over 60 years of age in the Colorado study (1975) preferred to learn during the day; and about half of the women potential learners either preferred daytime schedules or could attend during the day (Colorado, 1975; New York, 1977). Since most of these individuals do not want to study full time, but most continuing education programs are offered only in the evening, these findings suggest that more daytime adult education programs, offered close to home, are needed. Daytime learning is also likely to be acceptable to those individuals able to utilize on-the-job training at their employers' work sites.

Few adults want to study on the weekend--even though weekend schedules would avoid work schedule conflicts for most. Weekend study schedules are the preferred choice of only two to seven percent of potential learners (Colorado, 1975; Northeast New York, 1974; Western New York, 1976). However, somewhat larger percentages of adults say that weekend sessions are acceptable times for learning,

even though this may not be their preferred schedule (16 percent in California), or that the day of the week does not matter to them (18 percent in Western New York). Adults with higher levels of education and those who are already participating in continuing education activities find weekend schedules acceptable more frequently than do other adults. In the California study (1975), 33 percent of potential learners with postgraduate education and 20 percent of those with a college degree, but only eight percent of those with an 11th grade education, said weekend sessions were acceptable times for them to learn. In the Iowa study (1976), 25 percent of those already participating in continuing education programs said they could attend Saturday classes, although only three percent were doing so. The evidence suggests that current adult learners and those with higher levels of education have a deeper desire to learn (just as they express higher rates of interest in learning). Perhaps then, they are more willing to give up their weekends for learning. But the data show that even these individuals would prefer to learn sometime between Monday and Friday.

Few studies asked respondents if they would be willing to schedule learning activities in concentrated sessions during summer vacation months or several times a year. Such schedules are used successfully as part of a range of learning methods and schedules employed by non-traditional programs such as Britain's Open University and the University of Oklahoma's Bachelor of Liberal Studies Program. However, in those studies which did give respondents the option of such schedules, very few desired them; in the Commission on Non-Traditional Study survey (CNS, 1974), for example, only two percent indicated that their first choice would be to learn for short, full-time periods during the summer. Summer schedules, like weekend schedules, may not offer convenience for women with continuous home responsibilities. It would appear that most employed adults do not want learning activities to interfere with valued leisure time, whether on weekends or during vacation periods.

A final schedule alternative is the totally student-determined schedule. When the schedule is set by the student, learning can be spread out over a longer period of time and can be undertaken at irregular intervals. Therefore, this option can reduce the problem of lack of time (especially due to job and/or home responsibilities), which is cited as a major obstacle to learning participation. However, despite the high visibility of student-determined scheduling in non-traditional programs such as Empire State College in New York and Metropolitan State University in Minnesota, the state needs assessments did not question adults about their interest in setting up individualized study schedules. Because the general public has little knowledge about student-determined schedules, the studies' designers may have felt that adults would be unable to respond to such queries.

Those more likely to cite scheduling problems as barriers to learning are also those more likely actually to engage in learning activities--that is, those with higher levels of education, income, and occupational status (California, 1975; CNS, 1974; Iowa, 1976). These relationships can be seen in Table 5 taken from the California study. Yet, the better educated are more amenable than other potential learners to a larger number of schedule options for learning--more seasons of the year, more days of the week, more self-determined schedules (California, 1975; Iowa, 1976; New York, 1977). Only with regard to times of day are they seemingly less flexible than other potential learners. Presumably job responsibilities prevent studying during workday morning and afternoon hours.

Adults currently enrolled in continuing education programs found inconvenient scheduling of courses a serious problem prior to enrollment; for example, 27 percent of continuing education students in Iowa (1976) said scheduling had been a problem. But these continuing education participants were able to find programs which resolved their scheduling difficulties. In Massachusetts (1973), 70 percent of adult learners chose their programs because of

Table 5

Percent of Potential Learners Citing Inconvenient Course Scheduling as a Barrier to Participation in Learning, by Education Level, Occupation and Income Level

Potential learners	Percent citing scheduling as barrier
Educational attainment	
11th grade	10
High school graduate	22
Three years college	29
College graduate	26
Postgraduate	37
Occupational category	
Labor	9
Service	19
Skilled work	28
Clerical/sales	22
Professional/managerial	30
Annual income	
Under $7000	17
$7000-$9999	22
$10,000-$14,999	26
$15,000+	30

Source: California, 1975, p. 60.

the program's convenient hours (evening). Similarly, program flexibility with regard to scheduling, location, and self-pacing was named as a primary attracting feature by large majorities (62-98 percent) of students in the non-traditional programs examined by Medsker et al. (1975). Since the better educated potential learners are often much like current continuing education participants, this finding again suggests that many potential learners might be enabled to learn if programs which met their scheduling needs were available.

B. Access to Learning Locations

Traditional educational institutions--high schools, college campuses, adult learning centers--are the preferred learning sites of half to two-thirds of all potential learners in the state surveys. Conversely, relatively few potential learners prefer to learn in off-campus locations such as home (generally 7-11 percent), community center (typically 2-5 percent), or even work/business sites (typically 5-14 percent). This is so, even though such off-campus locations would reduce the obstacles to learning presented by home and job responsibilities. The desire of people to cling to the familiar surfaces time and time again in the data of adult preferences.

Educational buildings are preferred as learning sites not only because of their convenience (since public schools, and in some states community colleges, are located in every community) but also no doubt because of their familiarity. As the Central New York study noted (1975),

> adults still strongly associate education with the traditional and familiar school and college sites . . . . [In addition], people [may] feel more comfortable with the idea of studying in their local public school building. (pp. 30-31)

Most potential learners do not favor a college site. In most state surveys, less than a third of the potential learners wanted

to learn in a two- or four-year college (e.g., Central New York, 1975; CNS, 1974; Colorado, 1975). But preference for learning location is closely tied both to level of formal schooling and to level of further education desired. Desire to learn at a college location increases consistently with level of formal schooling attained (California, 1975; Colorado, 1975; Long Island, New York, 1976). In Colorado, for example, a college site was preferred by only 21 percent of those with 7 to 12 years of schooling, 30 percent of high school graduates, 38 percent of college graduates, and 41 percent of those with postgraduate education. A college site is also favored by those who wish to undertake "college-level" learning. Among those adults who wish to engage in some form of "further learning beyond high school," nearly half want to learn at a traditional higher education institution (California, 1975; Iowa, 1976).[11] Similarly, potential learners who want to obtain college credit or to study English, health professions, natural science, law, education, or other subjects typically included in a college curriculum, are likely to prefer to learn at a college or university (Central New York, 1975; Florida, 1976; Iowa, 1976).[12] Many potential learners say they are prevented from studying in colleges by barriers of schedules, costs, requirements for full-time study, and location (California, 1975; CNS, 1974; Iowa, 1976).

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[11]The California and Iowa studies asked respondents if they desired "some form of further learning beyond high school." Thus, those who might have been interested in basic educational skills and other less-than-college-level learning (and who might have been likely to choose noncollegiate sites) were excluded from the "potential learner" category. Forty-eight percent of such post-high school potential learners in California and 49 percent in Iowa favored a college location for learning.

[12]Generalizations regarding relationships between location and subject preferences rely primarily on three studies: Central New York (1975), Florida (1976), and Iowa (1976). Few other studies analyzed the interaction of subject and location preference--although clearly such an analysis needs to be undertaken if postsecondary education systems are to be able to plan for non-traditional learners.

Because "convenience" (i.e., nearby location) is the most important determinant of adults' choice of learning site (Florida, 1976; Massachusetts, 1973; New York, 1977), college locations appear more likely to be favored when college campuses are near adults' homes and work places. In states or regions where community colleges or other higher education institutions are located in nearly every populated area--and offer adult education programs--more potential learners favor a college or university site than favor any other location. For example, in Florida (1976) 36 percent prefer a college campus, while 18 percent favor learning at a school. In Long Island, New York (1976), a college or university learning site is often favored even by those with less than a high school diploma; 41 percent of this group prefer a college location. It would be interesting to make comparisons regarding site preferences between states with widespread versus limited free-access college systems, but past studies have consistently documented the relationship between accessibility and participation in education (Bashaw, 1965; Bishop & Van Dyk, 1977; Trent & Medsker, 1965; Willingham, 1970).

College campuses are not frequently preferred by those with low levels of schooling, the elderly, or Mexican-Americans (California, 1975; Colorado, 1975; New York, 1977). One reason that those with less than a college education prefer noncampus locations is that they lack familiarity with a college setting and may be less comfortable studying there; but in addition, the image of the type of learning offered by, and appropriate for, a college strongly affects the choice of learning site. Less well-educated adults typically want to learn vocational subjects, while older persons are often interested in hobbies and recreational fields (California, 1975)--subjects which tend to be perceived as "noncollege" studies. This suggests that if colleges and universities offered more vocational and leisure-time courses, or better publicized those they now offer, they might attract more disadvantaged and older

adults. The policy question, of course, is how far higher education institutions should change in order to serve such clientele.

By contrast, public high schools and/or adult learning centers are favored by substantial proportions of those potential learners who are less well-educated, have lower incomes, are older, and are Mexican-American (California, 1975; CNS, 1974; Colorado, 1975). Table 6 shows the proportions of potential learners in California (1975), by education, income, age, and ethnic group, who favored a nearby adult education center, a high school, and a two- or four-year college.

Those preferring to learn in a high school or adult education center often want to study trades, business, social science, or home economics subjects (Central New York, 1975; Florida, 1976).

The stratification by education of potential learners' preferred learning site is reflected in the actual locations used by current continuing education participants. The CNS study (1974) concludes, "Learners at each educational level tended to use the next educational level for learning" (p. 35). Since income level is related to level of educational attainment, universities tend to serve the most advantaged, community colleges the somewhat less advantaged, and public schools and other noncollegiate sites the still less advantaged (CNS, 1974; Iowa, 1976; Massachusetts, 1973).

Among potential learners, work or business sites are more frequently preferred as learning locations by those who are in the labor force, by those in unskilled occupations, and by those with less than a high school diploma (California, 1975). Nevertheless, adults in these groups more often want to learn at a high school or adult education center than at a work or business site. As we would expect, those who favor a work or business site for learning tend to name vocational or business-related fields as the subjects they want to learn (Central New York, 1975; Florida, 1976). However, as we shall see, many of those who want on-the-job training and most

Table 6
Percent of Potential Learners Preferring to Learn at an Adult Learning Center, a High School and/or a College Campus, by Education Level, Income Level, Age, and Race

	Education					Annual income			
	11th grade	HS grad	3 yrs. col.	Col. grad	Post-grad	Under 7,000	7,000-9,999	10,000-14,999	15,000+
Adult learning center	30	14	10	14	7	17	10	13	11
High school	6	3	3	1	0	4	3	1	1
College campus	18	37	56	54	65	46	36	50	53

	Age					Race		
	18-29	30-39	40-49	50-59	60+	White	Mex-Amer	Black
Adult learning center	5	14	15	22	35	15	16	14
High school	1	2	*	5	6	3	13	2
College campus	59	44	46	34	30	49	38	41

* less than 0.5 percent

Source: California, 1975, p. 48.

of those who want to study business or job-related subjects do not want to learn or train at their work place.

Unlike preference for college site, community center, or job site, preference for study at home does not seem to be consistently linked with certain types of subject interests. We suspect that study at home is chosen by adults such as full-time homemakers or the elderly, who are less able to travel to an educational institution or to other away-from-home locations, but we have inadequate data to document this hypothesis.

Among those few adults preferring to learn at a community center (YMCA, museum, etc.), hobbies and social science subjects tend to be the most frequent subject choices; however, subject choices are scattered (Central New York, 1975; Florida, 1976). Older adults, who are disproportionately represented among potential learners interested in hobbies, are more likely than others to favor a community site (California, 1975).

We have been discussing potential learners' most *preferred* learning sites, but what about the range of locations that potential learners are *willing* to use in order to learn? Those with higher levels of education are more flexible with respect to locations, just as they are with methods and schedules. The CNS study (1974) found that potential learners with at least a high school diploma favor a greater variety of educational sites than do less well-educated potential learners. In addition, the percent of those who say that site makes no difference rises with education level; in New York (1977), 10 percent of those with less than eight years of schooling and 25 percent of those with a college degree or above said learning site made no difference.

Two major conclusions emerge from the data on needs and preferences with respect to location. First, convenience of learning location is cited by adult learners as an important consideration, and past studies have shown that establishing a free-access, low-tuition college in a region increases college attendance significantly.

At tension, however, with that general conclusion is the second finding that emerges from our data. Most people tend to cling to the familiar, sometimes sacrificing convenience in order to achieve credibility or familiarity. Most people prefer to learn in a "school building"--usually the highest one for which they are eligible--and they have rather traditional expectations about what is taught there. The eagerness of the non-traditionalists to respond to the needs of non-traditional learners is frequently met with suspicion and lack of interest on the part of the very people who stand to benefit. It appears that some of the new conveniences of non-traditional education are going to have to gain credibility through familiarity before they will be endorsed by a basically conservative clientele. Nevertheless, well-educated (and usually more self-confident) learners are more willing than their less experienced fellow learners to entertain new ideas about locations, much as they are more willing to experiment with new methods and subjects.

II. Teaching/Learning Considerations

A. Needs for Appropriate Learning Methods

No one method of learning is preferred by a majority of potential learners; national and statewide studies of adult potential learners consistently report that adults' choices of learning methods are varied. The figures shown in Table 7 are fairly typical. Notice that although lectures or classes lead all other methods in both preferences and practice, substantial majorities of people would prefer something else. Among the learning methods preferred or accepted most frequently are classes or lectures, on-the-job training, and short-term conferences or workshops--all relatively familiar modes of adult learning.[13] Among the methods least often named

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[13] Because some studies (for example, CNS, 1974; Florida, 1976; Western New York, 1976) permitted respondents to list only one choice while others (California, 1975; Illinois, 1973; Iowa, 1976) permitted respondents to list or evaluate all methods, percentages are not always comparable. However, the rank order of methods named was generally quite similar for all studies.

Table 7

Percentages of Would-Be Learners Preferring the Method and Percentage of Learners Using the Method

Method	Preferences of would-be learners	Utilization by learners
Lectures or classes	28	35
On-the-job training, internship	21	14
Short-term conferences, institutes, or workshops	13	8
Individual lessons from a private teacher	8	6
Discussion groups	8	4
Study on my own	7	17
Correspondence course	3	5
Group action project	3	2
Travel/study program	2	*
TV or video cassettes	1	*
Radio, records, or audio cassettes	1	*
Other method	*	2
No response	4	8
Total	100	100

* Less than one percent

Source: CNS, 1974, p. 30.

by respondents are the newer, more non-traditional and media-based methods: correspondence study, television, and radio or tapes.

Classes or lectures are the most preferred learning method of between 20 and 30 percent of would-be learners in most studies. However, classes are an acceptable method of learning for at least 45 percent of would-be learners in the California (1975) and Illinois (1973) studies, which asked respondents to name all learning methods they felt were appropriate or good for them personally.[14]

The lecture or classroom method has greatest appeal to those with college educations, high income, and high-status occupations (California, 1975; CNS, 1974; Iowa, 1976). In California, for example, nearly 50 percent in these groups found classroom learning an appropriate method. Adults desiring college degrees also favor classroom learning. Among students in extended degree programs in the Medsker et al. study (1975), small classes were the most satisfying mode for sizable majorities of the students; and potential clientele for the media-delivered State University of Nebraska (SUN) program (1974) ranked lectures above other learning sources such as books, television, or tapes.

Methods, of course, are related to schedules, locations, and subjects. If held in the evening, classes are a relatively favored method, but day classes are less acceptable than some other modes (California, 1975; Iowa, 1976). In the Florida survey (1976),

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[14]Unlike the California and Illinois studies, Iowa (1976) asked all respondents, not just would-be learners, to list appropriate learning methods. Since many respondents expressed no interest in learning, it is not surprising that a smaller proportion of Iowa respondents (perhaps 20 percent) listed classes, or that in general fewer listed other methods. Another problem in ascertaining the extent of acceptability of a learning method is that some studies (especially California and Iowa) integrated method, schedule, and location choices (e.g., evening classes at a college campus) in a multiple-response question. Thus, one cannot determine how many total respondents found classes an appropriate learning method.

those preferring the lecture method were more likely to want to learn college courses or business-related subjects than to learn other subjects. But the evidence suggests that even those interested in rather traditional subjects ordinarily taught by lecture-discussion methods are open to and interested in a variety of teaching-learning methods.

On-the-job training is the nontraditional method most often favored by potential learners. In most studies it was the second-ranked method preference (after classes) for the samples as a whole and the first-ranked choice of particular subgroups, such as the less educated. For some reason, the percentages of respondents favoring on-the-job training varied more from study to study than did the percentages preferring classroom learning. Between 11 and 41 percent of potential learners in the different studies most preferred on-the-job training. The fact that a larger proportion of potential learners favor on-the-job training than the proportion of adult learners able to utilize this learning method (CNS, 1974; Florida, 1976; Iowa, 1976; Western New York, 1976) suggests the need for expansion of opportunities for on-the-job learning.

On-the-job training is especially favored by those potential learners whom policy planners often are particularly desirous of reaching--the disadvantaged. In the California study (1975), for example, less well-educated respondents (high school diploma or less), labor or service workers, low-income respondents, and Mexican-Americans favored on-the-job training more often than any other learning mode. Younger respondents and males prefer this method more often than do older or female respondents. As might be expected, those potential learners preferring on-the-job training are more often interested in occupational or technical subjects (Florida, 1976).

Because on-the-job training is often offered by an employer at no cost to the employee and during regular working hours, it would eliminate the two barriers to learning most frequently mentioned by potential learners: lack of time to learn and cost of

program. Yet in the CNS study (1974), on-the-job training was the most preferred method of 21 percent of would-be learners, while only five percent chose employer's workplace as their preferred location for learning. (Another 10 percent chose an industry or business site, government agency, or other organizations and agencies as their preferred learning location.) The same disparity between on-the-job method and employer site appears in the California (1975) and Iowa (1976) studies. One hypothesis for this apparent discrepancy is that although a substantial number of adults favor the on-the-job method, many of these learners may want to learn a job in which they would like to be employed but are not now. In any case, this finding suggests that employer-sponsored on-the-job training may not fully meet the training interests and learning obstacles of adults favoring on-the-job learning. This may be particularly true for women not currently in the labor market.

Short-term conferences, institutes, or workshops are preferred by about 13 to 27 percent of potential learners, usually ranking third or higher in the list of preferred learning methods (Central New York, 1975; Florida, 1976). More professionals and managers prefer conferences and workshops than do adults in other occupations (CNS, 1974). The percentage of adult learners currently utilizing this method, however, is lower than the potential learners who would like to utilize it (see Table 7). Unfortunately, although workshops appear to be relatively popular, only a few studies included it in their lists of method choices. As a result, little information is available.

Independent study is the most preferred method of only a small proportion of potential learners (3 to 14 percent). On the other hand, when respondents are asked to name all appropriate learning modes, and when the category is defined as "independent study . . . *in consultation with an instructor*" (emphasis added), the percentage of potential learners who respond that they could learn by this method increases substantially. In California (1975), where these conditions were met, 32 percent of would-be learners listed inde-

pendent study as an appropriate learning mode. Among current AE students in Iowa (1976), only 6 percent said they do learn through independent study but 40 percent said that (in consultation with an instructor) they could learn through this method.

Interest in individual study as a learning mode generally increases with higher levels of education and income. Adults interested in obtaining a college degree are quite favorable to the independent study method; majorities of students in those extended degree programs which offered independent study or tutorial methods found them to be a satisfying mode of instruction (Medkser et al., 1975). Less well-educated adults do not favor independent study very often (California, 1975; Iowa, 1976). For example, in the California study, 17 percent of potential learners with an eleventh grade education or less, but 49 percent of those with a college degree and 46 percent of those with postgraduate education said that independent study was an appropriate way for them to learn.

Independent study as a learning mode can reduce frequent obstacles to learning--lack of time and schedule conflicts with job or home responsibilities. Those more likely to list such barriers to learning (potential learners with above-average education and income levels) are also those more likely to favor independent study (California, 1975; Iowa, 1976). Those favoring this learning mode are also likely to note the self-pacing nature of this mode (Northeast New York, 1974).

Media-based instruction such as educational television, radio, video- or audio-cassettes, or newspapers, has been heralded as a convenient means by which adults' learning needs and interests can be met. Yet only a handful of would-be learners in the studies (generally between one and three percent) most prefer such modes. However, as is true of the independent study method, substantially larger proportions of would-be learners (18 percent in California and 37 percent in Illinois) say television or radio is an appropriate way for them to learn--even though it may not be their

preferred method (California, 1975; Illinois, 1973). Current adult education students are more favorably inclined toward media-based learning than are potential learners, although very few AE students surveyed were using television or radio for their learning activities. For example, 41 percent of current continuing education students in Massachusetts (1973) said they would personally use an "open university" program (defined as an expanded home television and correspondence program). Potential learners with higher levels of education are generally favorable toward media-based methods. In Northern New York (1976), 70 percent of educational television or radio users had completed or nearly completed a college degree or were already enrolled in educational programs. Those favoring television as a learning mode cite the ability to learn at home as a major reason for their preference (Northeast New York, 1974).

There is, however, some uncertainty about what kind of subjects are favored for learning by television or radio. In rural northeastern California, 37 percent of those interested in attending a local college but unable to do so agreed that they would be interested in "home instruction" (Northeast California, 1972). On the other hand, the Ontario study (1976) found that television, radio, and audio tapes were most frequently mentioned by adult learners who wished to learn job-related, personal development, and recreational courses--and less so by those who wished to study academic subjects.

Findings for respondents favoring correspondence study are comparable to those for media-based instruction, although level of expressed interest in this method is sometimes slightly higher, probably because of its familiarity. Those favoring correspondence study cite its self-pacing nature as well as the ability to learn at home as a major reason for their preference (Northeast New York, 1974). Television, radio, or correspondence learning not only facilitates access to the learning site but also may reduce transportation and child-care costs.

Given the ability of nontraditional methods to reduce or eliminate many of the barriers to adult learning--such as inaccessible learning sites, scheduling conflicts, and costs for child-care and transportation, why do not more adults favor such non-traditional methods? Two factors--lack of familiarity and lack of personal contact--appear to be the main reasons for the lack of enthusiasm for non-traditional learning methods. The authors of the California study (1975) conclude:

> Relatively familiar and conventional approaches to learning are acceptable to more of these [would-be learners] than unfamiliar, new, and seemingly impersonal means. Their conception of education continues to involve a classroom, a teacher, and other students like themselves. (p. 45)

At the same time, those adults most likely to actually engage in adult learning activities--that is, those with high levels of education and interest in learning--are just those adults more favorably inclined toward non-traditional methods. It may be that greater familiarity with and legitimization of non-traditional modes will increase acceptance of such methods by potential learners, without concomitant increases in levels of formal education.

Many potential learners desire the feedback, personal contact, and reinforcement of learning by teachers and peers that classroom learning offers and that individual study and media-based methods do not, according to the Northeast New York (1974) and Northern New York (1976) studies. In a 1974 SUN survey (1974), potential learners considered studying on one's own, if it was to be the only method used, less suitable than classes or other traditional methods of learning; yet most respondents preferred a combination of directed and independent study. Thus the combination of "impersonal" non-traditional modes (which may still be the most feasible ways to reach many adults) with periodic interaction with instructors and other students may best overcome the situational barriers and meet the psychological needs of many potential learners.

In conclusion, although adult learners tend to prefer teaching-learning methods that are familiar to them, there is a need for alternatives. Despite their relative popularity, traditional classes are the preferred learning method of only about a fourth of the potential adult learners.

The methods of analyses used in the state studies make it exceptionally difficult to study the interaction effects of preferred methods with subject matter. Obviously, there is a strong relationship, and people asked about methods preferences may be dealing not with personal preferences so much as subject-matter stereotypes, e.g., history is taught by lecture; carburetor adjustment by on-the-job training. As people become aware that history, for example, is being exceptionally well taught through television programs such as "Roots" and "Upstairs, Downstairs," the acceptability of alternative methods will no doubt increase.

The desirability of alternative methods is not a matter of promoting non-traditional methods over the more traditional standbys. It is really a question of using alternative methods to overcome some of the major barriers to adult learning, such as inflexible schedules and inaccessible locations. The more flexible people can be in using the available methods alternatives, the greater their opportunities for learning. There is clear evidence that those who *do* participate in educational activities as adults are more open to a variety of learning methods than either would-be learners or disinterested adults. The fact that they can utilize alternatives increases their opportunities which in turn increases their familiarity and acceptance of alternative methods. Once again, the familiar cycle is apparent; advantaged learners are in the best position to take advantage of learning opportunities.

B. Motives for Learning

Burgess (1971) states that adults' motives for learning can be determined in at least four ways: 1) inferring their motives from

the subjects adults study, 2) asking them to state in their own words why they want to learn, 3) asking them to select their reason or reasons for learning from a list provided by the researcher, or 4) concentrating on adults' orientation to education. There is, of course, a strong relationship between desired subjects, reasons, and orientations. Nevertheless, each method provides a different perspective on adults' motives, and each has its shortcomings. For example, when adults are asked to select from a list all those reasons that influence their desire to learn, examination of their responses indicates that they most frequently name reasons that are socially desirable, such as for "personal fulfillment." On the other hand, inferring motives from subjects chosen can be risky, since one adult may desire a course (say, typing) for job-related reasons while another may want it for personal use and enjoyment. Using more than one measure helps us obtain a better picture of adults' motives.

Most state needs assessments ask adults about both subject preferences and reasons for learning (either in their own words or selected from a list). Therefore we will examine in turn the subjects adults choose and the reasons they give for learning and wanting to learn. To the extent the data enable us to do so, we will also examine the interaction between subject preferences and reasons for learning.

Subject Preferences

Adults often express interest in learning several subjects. Among the subjects most frequently mentioned by potential learners are vocational/professional, hobbies and recreation, and home and family subjects. Many also name general education and personal development subjects (CNS, 1974; Iowa, 1976; Western New York, 1976).

When potential learners are asked to name their first-choice subject, however, they become highly pragmatic, serious, and occupationally oriented. About half of all potential learners name, as their first choice, subjects that are vocational or professional

(California, 1975; Central New York, 1975; CNS, 1974).[15] Indeed, would-be learners are more job oriented than are adults currently engaged in adult education programs; somewhat over one-third of all adult learners are studying vocational or professional subjects (CNS, 1974; Ontario, 1976).

Among the most frequently chosen vocational/professional subjects are business skills or administration, trades or technical subjects, and nursing (Central New York, 1975; CNS, 1974; Iowa, 1976; New York, 1977). In the CNS study, nine percent of potential learners named business skills as their first-choice subject and 26 percent listed it as one of the subjects they would like to learn.

Interest in vocational fields generally declines as education level rises (California, 1975; Central New York, 1975; Iowa, 1976). In California, for example, 51 percent of potential learners with up to 11 years of schooling and 47 percent of high school graduates picked vocational/professional subjects as their first choice; only 26 percent of those with postgraduate education did so. Despite their high interest in vocational subjects, the less educated are much less likely than those with higher levels of schooling to actually study vocational subjects (Iowa, 1976; Ontario, 1976). The Iowa study (1976) concludes:

> A large portion of those few low-income low previous education respondents who expressed an interest in further learning at all chose technical skills. Yet almost none followed through with a statement of plans to pursue training in these areas. (p. 84)

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[15] The Long Island, New York study (1976) is an exception; in this study only 22 percent of potential learners chose vocational/technical subjects, and 48 percent chose general education subjects. However, professional subjects were not included in the list of subject areas from which respondents could choose; perhaps many of the potential learners (among whom highly educated adults were disproportionately represented) considered professional subjects to be in the general education category.

Interest in vocational/professional subjects also varies by sex and age. Congruent with sex-role stereotypes, men are somewhat more interested than women in most vocational/professional subjects--except those linked to "female" occupations such as business skills (e.g., typing, shorthand), nursing, and education (CNS, 1974; Florida, 1976; Iowa, 1976). Interest in vocational/professional subjects drops sharply after about age 55, when potential learners become more interested in pursuing avocational and general knowledge topics (California, 1975; Florida, 1976; New York, 1976).

Many of those desiring nonprofessional vocational subjects want employer-sponsored training at a work site, a public school, or a community college (Central New York, 1975; Florida, 1976; Iowa, 1976). For example, among those interested in business skills in the Iowa study, a third desired employer-sponsored training, and a fourth preferred a community college location. On the other hand, those wanting to learn professional subjects such as education, nursing, or law are more likely to prefer a college or university location, and most want college credit (Central New York, 1975; Iowa, 1976). Those interested in professional subjects have completed more schooling than have those interested in nonprofessional vocational subjects; and, as always, the more educated individuals express greater interest in college sites and in a wider range of learning methods (Iowa, 1976).

There is not a heavy demand among potential learners for general education and traditional college academic subjects. The CNS study (1974) remarks,

> Academic professionals will find it somewhat disheartening that adult Americans are so little interested in traditional liberal arts subjects or, for that matter, in such public affairs topics as community and environmental problems. (p. 20)

Generally, no more than one-fourth or one-fifth of potential learners name general education fields as first-choice subject preferences

(Illinois, 1973; Iowa, 1976; Western New York, 1976).[16] But 30 to 50 percent of potential learners express some interest (not first-choice interest) in general education subjects.

Well-educated potential learners, those interested in college credit or college-level courses, and current adult education participants all express more interest in general education than do most other adults (Central New York, 1975; CNS, 1974; Iowa, 1976). In Central New York (1975), social science, natural science, or foreign language subjects were named as first-choice interests by 7 percent of potential learners with less than a high school diploma, 16 percent of those with one to three years of college, and 29 percent of those with graduate education. However, when basic skills subjects (such as reading) are included under general education, those with relatively high interest in general education divide into two groups: those with very little formal schooling and those with high levels of formal education (CNS, 1974). Clearly, these groups are seeking different kinds of general education.

Among the general education subjects, psychology (especially personal psychology) and other subjects oriented to personal concerns are popular (New York, 1977; SUN, 1972). Some educators suspect, however, that much of the popularity of courses like psychology is based on misconceptions of the actual content of academically based courses. Many people who sign up for psychology courses may be in search of how-to-do-it courses that will help them in daily personal interactions with family and co-workers. A study of part-time adult students in California community colleges

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[16] Two apparent exceptions are the Florida (1976) and Long Island, New York (1976) studies. In Florida 46 percent of potential learners were described as naming a general education topic as their first-choice interest. However, many more subjects appear to have been included under the general education rubric in Florida than in most other studies. We have already commented on the high percentage (48 percent) of those naming general education as a first choice in the Long Island, New York study.

concludes that, although they often enroll in the same classes in which students pursuing degrees and certificates are enrolled, many adults have personal growth objectives which they seek to achieve outside of degree and certificate programs (California Postsecondary Education Commission, 1976).

Hobbies, home-and-family living, and personal development subjects have a very wide appeal among potential learners, although not a very strong appeal. Relatively few potential learners pick these fields as first-choice subjects, but majorities express an interest in these areas (Central New York, 1975; CNS, 1974). The typical extent of first-choice interest and of any interest in these subject areas is illustrated in Table 8 taken from the CNS (1974) study.

The Iowa study concludes:

> The adult and the non-traditional learner is more likely to *demand* learning opportunities which help him or her in the marketplace, but may *want* to learn other things that conform more closely to the notion that learning is mainly "to be better informed" or "for personal satisfaction." (p. 37)

Interest in learning hobbies is especially high for older potential learners (those 60 years of age or older) who, as they leave the job market, are looking to learning programs that will satisfy avocational leisure-oriented interests (California, 1975; Florida, 1976). In California, for example, one-third of potential learners over 60 years of age picked arts and crafts as their first-choice subjects. Interest in recreational courses is also greater among women, Caucasians, and those with postgraduate education (California, 1975; Central New York, 1975; CNS, 1974). Most adults are interested in hobbies and recreational activities because of the social activity and personal satisfaction these fields offer. Not surprisingly, they are not interested in certificates or degrees for these studies (Iowa, 1976).

Table 8

Learning Interests of Would-Be Learners (N=3001)

Category and topic	Percent reporting any interest in topic	Percent reporting first-choice interest in topic
Hobbies and recreation	63	13
Crafts	27	3
Fine and visual arts	16	2
Flight training	11	2
Performing arts	14	2
Safety	16	0
Sports and games	28	2
Travel	22	2
Home and family living	56	12
Child development	17	4
Gardening	26	2
Home repairs	25	2
Sewing, cooking	27	4
Personal development	54	7
Investment	29	4
Occult sciences	7	0
Personal psychology	15	2
Physical fitness	26	1
Public speaking	11	0

Source: CNS, 1974, p. 19.

Personal development subjects (e.g., physical fitness, investment) and home-and-family living subjects (e.g., child development, sewing) are each selected as first-choice subjects by 12 percent or less of potential learners (CNS, 1974; Florida, 1976; Western New York, 1976). Women are much more likely than men to express interest in home-and-family subjects, and adults with postgraduate education levels are more likely than other potential learners to choose personal development topics (California, 1975; CNS, 1974; Florida, 1976). In a sense, such subjects are luxuries that can be more easily afforded by those with more education and income (CNS, 1974).

Few potential learners express any interest in studying community or public affairs. Only about three to five percent name such topics as first-choice interests (CNS, 1974; Iowa, 1976; Western New York, 1976); and a third at most express any interest in these subjects (CNS, 1974).

The need for variety in educational offerings is apparent in the wide range of specific subjects in which adults express interest. In the California study (1975), 167 different subjects were mentioned as first-choice selections. Similarly, current participants in continuing education are interested in many subjects in addition to those they are now learning. In the Massachusetts (1973) and Northeast New York (1974) studies, majorities of current continuing education students expressed interest in more courses in academic fields and in professional or graduate-level subjects; in addition, one-third to nearly one-half desired more arts and crafts courses or personal-interest subjects, more business-oriented courses, and more social and community service subjects.

Most subjects that interest adults are those that are or could be offered by traditional educational institutions (California, 1975; Central New York, 1975; Florida, 1976). The California study notes: "Only a few [of the desired subjects] would not have credibility within existing academic or occupational training circles" (p. 39).

While most subjects desired presumably are being offered, there are nevertheless complaints about what is not available. In the California study, 12 percent of adults who wanted to learn said that available courses were not useful or practical, and 11 percent said that available courses were not interesting to them.

There is apparently some need for new *arrangements* of subjects and for ways to assemble educational resources offered by a wide variety of school and nonschool institutions. This need is greatest for adults who have a sustained interest in an unusual or interdisciplinary field, especially when they want their studies to be recognized through college degrees or job certification. Peterson and Hefferlin (1975) argue:

> Older and more mature adults often have wide-ranging interdisciplinary interests that do not fit neatly into conventional degree programs, whether on or off campus. . . . Today, although the pieces of such individualized programs exist in hundreds of courses, these mature learners cannot assemble them into a pattern leading to a degree. (pp. 61-62)

High interest in individualized study programs that allow students to determine unique curricula for learning was present in the Medsker study (1975) of students enrolled in non-traditional degree programs. A majority of students in most programs said that the "individualized approach" was an important feature in attracting them to the programs. Unfortunately, few state and regional needs assessments queried adults about their interest in individualized student-determined study programs. Yet, when learning is constrained by external certification requirements, the flexibility of an individualized curriculum becomes important.

Reasons for Learning

Extensive research on adults' reasons for learning has been conducted. In a seminal contribution, Houle (1961) identified three

motivational orientations of adult learners: goal orientation activity orientation, and learning orientation. From this basis, a number of taxonomies of adults' reasons for learning have been developed, mostly through factor analysis of a pool of items regarding possible reasons for learning.

Burgess (1971) hypothesized eight preliminary motivation clusters. He then screened a list of 5,773 reasons, finally coming up with 70 items representative of the initial eight clusters. A factor analysis of the responses of 1046 adults to a questionnaire employing the 70 items revealed seven interpretable factors: 1) desire to know, 2) desire to reach a personal goal, 3) desire to reach a social goal, 4) desire to reach a religious goal, 5) desire to escape, 6) desire to take part in a social activity, and 7) desire to comply with formal requirements. Numerous other factor analytic studies have been conducted regarding adult motivations for learning (see Dickinson & Clark, 1975). Although each study finds somewhat different factors, there is considerable similarity of categories (in part because similar instruments were used). Most of the state and regional studies, as well as the CNS study, either explicitly or implicitly utilized the categories of learning motivations developed by factor analytic research.

For the present analysis, we have chosen to adopt and adapt the categories identified in previous research which best seem to fit the data from the state studies.[17] We therefore classify reasons for learning into six major categories:

1. desire to achieve practical personal goals--especially to get a new job or advance in one's current job, or to improve one's income;

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[17]For example, we have not included religious motivations, since most of the state studies (which were largely concerned with response of educational institutions to learners' interests) did not ask questions designed to elicit religious motives. Our categories rely most heavily on Burgess (1971), the Ontario study (1976), and the CNS study (1974).

2. desire to achieve personal satisfaction and other inner-directed personal goals, such as personal development and family well-being;

3. desire to gain new knowledge, including the desire to learn for its own sake;

4. desire to achieve formal education goals (degrees, certificates, etc.;

5. desire to socialize with others and/or to escape from everyday routine; and

6. desire to achieve societal/public welfare goals.

Potential learners' primary reasons for learning are usually--but not always--related to the subjects they want to study. Those interested in learning vocational subjects tend to cite a job-related reason as their main reason for learning, while those choosing nonvocational subjects list nonjob-related reasons (New York, 1977). Since a majority of potential learners name vocational/professional subjects as their first-choice interests, it is not surprising that more potential learners (34 to 58 percent) say their most important reason for learning is job-related than mention any other reason (Long Island, New York, 1976; New York, 1977; Western New York, 1976).[18] But potential learners have several motives for learning in addition to their main reason. Half to two-thirds say that gaining new knowledge and achieving personal satisfaction are among their reasons for learning--just as half or nearly half say that hobbies, personal development, and general education subjects are among those subjects in which they are interested (California, 1975; Iowa, 1976; Northeast New York, 1974).[19]

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[18]The Florida study (1976) is an exception. In Florida, 25 percent of potential learners said their most important reason for wanting to learn was job-related, but 39 percent said their main reason was a desire to be better informed.

[19]These figures are based on questionnaires which asked potential learners to list all or several reasons they felt were important in their decision to pursue further learning.

The strong relationship between job-related reasons and choice of vocational or professional subjects becomes clear when we analyze the reasons of those adults who prefer vocational subjects separately from those who prefer nonvocational topics. In the New York study (1977) three-fourths or more of those potential learners whose first-choice subject was a vocational or professional field said their main reason for wanting to learn was job-related. The New York figures for a number of vocational/professional subjects were as follows:

First-choice subject	Percent whose main reason was job-related
management skills	85.2
education	83.5
nursing	80.4
computer science	80.4
sales and advertising	76.6
engineering	74.7
business skills	74.3
high school equivalency	74.2
protective services	73.7
service occupations	70.5

Many who want to study subjects not typically classified as occupational (such as basic education skills) have practical goals (job or income reasons) in mind. In New York (1977), for example, 74 percent of those who said high school equivalency preparation was their first-choice study area said the main reason for their interest was job related.

Knowing what reasons do *not* motivate specific groups of adults to seek learning is perhaps as important as knowing what reasons do motivate them. In their typology of adult learners, based on identification of unique patterns of motivational orientations to learning, Morstain and Smart (in press) found that "Career-Oriented Learners" have high interest in professional advancement but little interest in learning for its own sake.[20] Morstain and Smart con-

[20]The other adult learner types identified by Morstain and Smart are "Non-Directed Learners, Social Learners, Stimulation-Seeking Learners, and Life-Change Learners."

clude that institutions' ability to attract and meet the needs of these Career-Oriented Learners may hinge on the direct practical relevance these learners perceive career-oriented programs to have.

Potential learners who most want learning in order to meet job needs or to increase income are the less advantaged--those with lower levels of education, lower income levels, and unskilled or semiskilled occupations (California, 1975; New York, 1977; Western New York, 1976). A majority or near majority of these less advantaged potential learners name getting or advancing in a job or improving income as their main reason or a very important reason for learning (Colorado, 1975; New York, 1977). These individuals are looking to adult education as a means out from the bottom. However, job-related reasons were at least of some importance to many of the more educated, particularly those with one to three years of college (California, 1975; Iowa, 1976; Ontario, 1976). Nonwhites, who more often have less income and less schooling than whites, are more likely than whites to name job or income reasons for learning (California, 1975; Colorado, 1975; Illinois, 1973). More men than women named job-related reasons; job reasons for learning declined sharply among older adults (Colorado, 1975, Iowa, 1976; Ontario, 1976). These relationships are congruent with the vocational subject interest patterns of these groups.

Learning for personal satisfaction, for personal development, or to be a better parent or spouse is important to most potential learners. Although only one-third or fewer potential learners name personal satisfaction as their *main* reason for learning (New York, 1977; Western New York, 1976), in most studies half or more of the potential learners mention this motive as one of their reasons for learning (California, 1975; CNS, 1974; Colorado, 1975; Northeast New York, 1974). Women and Caucasians are especially likely to list personal satisfaction or development as one of their reasons for learning (California, 1975; Iowa, 1976).

On the other hand, large numbers of those who desire to learn nonvocational subjects *do* cite a desire for personal satisfaction as their most important reason for wanting to learn (New York, 1977). Moreover, some adults who want to learn subjects usually considered to be occupationally oriented are motivated primarily by personal satisfaction and other nonjob-related reasons (New York, 1977). This may be particularly true of such business skills subjects as typing and accounting, which many individuals probably want as an aid in preparing personal correspondence, home budget management, and so forth. For example, in the New York study (1977) one quarter of those interested in business skills, engineering, or sales and advertising subjects said the primary reason for their interest was not job related. Schools and colleges need to know why adults in fact engage in specific "vocational" courses or seek to do so, if the institutions are to provide course content appropriate to adults' actual purposes.

The desire to gain knowledge, to be better informed, or to satisfy one's curiosity is, as we have noted, of some importance to a majority of potential learners. Again, those interested in nonvocational subjects are more likely than those choosing vocational fields to name gaining knowledge as a reason for learning (New York, 1977; Ontario, 1976). Women and the well-educated, especially those with a college degree or postgraduate education, express more interest in learning for knowledge reasons than do other potential learners (California, 1975; Colorado, 1975; Long Island, New York, 1976). The percent of adult potential learners saying that to gain knowledge is their most important reason for learning varies widely, perhaps reflecting the differing levels of educational attainment of the samples. Less than 10 percent of those in New York (1977) and Western New York (1976), but 28 percent in Long Island, New York (1976) and 39 percent in Florida (1976) said that gaining new knowledge was their most important reason for wanting to learn.

Relatively small proportions of potential learners list one or more of the other three types of reasons for learning. To work to obtain an educational degree or certificate is given as a reason (but usually not the main reason) by 12 to 28 percent of potential learners (Iowa, 1976; Northeast New York, 1974; Western New York, 1976). To obtain a degree or certificate is, of course, usually a step toward some other goal, such as to enter a profession or to gain information. Younger persons and those with one to three years of college are more likely to say they want to learn in order to obtain a degree or certificate (California, 1975).

The desire to learn in order to socialize with other people or to escape from daily routine is named as a reason for engaging in learning activities by over a third of potential learners (California, 1975; Iowa, 1976; Northeast New York, 1974). Two percent of potential learners in New York (1977) and 10 percent in Western New York (1976) said such motives were their most important reason for wanting to participate in further learning programs. Socializing or escape reasons for learning participation are often mentioned by those interested in hobbies and recreational subjects. For example, in the Iowa study (1976) 90 percent of adults interested in crafts subjects listed meeting new people, getting away from routine, or getting into something new among the reasons for their learning interest; many of those choosing home-and-family subjects gave these same reasons. Women and those with low levels of schooling are more likely to see learning activities as an opportunity for them to escape unrewarding duties and to meet new people (California, 1975; Iowa, 1976; Ontario, 1976).

Only about one-fourth of potential learners say that achieving societal goals or solving community problems is one of their motives for engaging in adult education programs; and only one to two percent say it is their main reason for wanting to participate (California, 1975; CNS, 1974; Iowa, 1976; New York, 1977; Western New York, 1976). Clearly, most potential learners are prompted by personal and individual concerns in seeking out further learning.

In conclusion, all of our data thus far show the powerful role of motivation in adult learning. Past research indicates that adult motivations for continuing education may be described by six factors or categories:

1. Desire to achieve practical personal goals--to get a new job or advance in a current one, or to improve income.

   The desire to improve one's personal lot in life remains the primary motivation for adult education. Those who do not have good jobs would like to get new ones; those who have fairly good jobs would like to advance; those with low incomes would like more money. Education is seen as the primary route to upward socioeconomic mobility, and vocational/professional education is the first choice of the majority of learners and would-be learners. Those who are not participating in education (and are less advantaged) are even more interested in job-related education than their more advantaged peers who have the luxury of using education to improve the quality of life off the job as well as on.

2. Desire to achieve personal satisfaction and other inner-directed personal goals, such as personal development and family well-being.

   The use of education for personal satisfaction is a luxury most people wish they could afford. While majorities of potential learners are interested in the nonvocational learning offered by courses for hobbies, home and family living, and personal development, such subjects are rarely cited as first choice. The exception occurs among older people who are quite likely to use education for leisure-time pursuits.

3. Desire to gain new knowledge, including the desire to learn for its own sake.

   In one sense, this generalized idealized motivation for learning is so socially acceptable that it is offered by most people as an important motivation for learning. Although it is difficult to obtain any behavioral verification since almost any subject--from macrame to engineering--could be studied because the act of studying it or knowing more about it is satisfying, nonvocationally oriented learners are more likely to say they are interested in knowledge for its own sake than are career-oriented learners. Apparently the average adult learner does not regard traditional liberal arts courses as the foundation subjects that will satisfy his or her need for new knowledge. Only small minorities of adult learners express a strong interest in traditional discipline-based subjects, and these learners predictably are those with high levels of educational attainment.

4. Desire to achieve formal educational goals (degrees, certification, etc.

The pursuit of degrees is strongly associated with level of educational attainment and with desire for job advancement. Younger persons and those with one to three years of college are very likely to be degree-oriented whereas the desire for credit or certification drops off sharply for those over 55 who are no longer interested in career advancement. While working for credit is not usually given as a primary motivation for education, a desire for some formal recognition is in keeping with the pragmatic orientation of most adult learners.

5. Desire to socialize with others and/or escape from everyday routine.

A surprising number of adults (over one-third) are frank to admit that escape is, for them, a reason for pursuing coursework. It is rarely, however, offered as the primary motivation. Nevertheless there are certain groups of people for whom education serves as escape and an opportunity to meet new people. Such learners are quite likely to be interested in hobbies and recreational subjects and they are likely to be people who lack other social outlets--the elderly, women confined to home and family, etc. Unfortunately, many of those most eager for social contact may lack the mobility to participate in group learning activities. Whether home-delivered education to socially isolated learners can be designed to serve such people remains to be seen.

6. Desire to achieve societal goals.

The desire to learn to be a better citizen is not a strong motivation for learning, although about one-fourth of the potential adult learners cite it as one motivation among others. Those experienced with the market fluctuations for extension and noncredit courses have observed, however, some apparent societal motivations when there is a surge of demand for courses on energy or ecology, for example. The state needs assessments reviewed here offer little information about the reaction of people to particular social concerns that fluctuate as a result of the visibility given to an issue by the nonformal educational network of television and the popular press.

The overall picture that emerges from the data on adult motivations for learning is that adults are pragmatic learners who pursue education for its practical utility to them. A frequently ignored observation is that whereas young people

learn more or less what they are told to learn, adults usually learn to an end that is clear to them. Any attempts to serve a "voluntary" learning force will need to understand, better than we do now, the real motivations of adult learners.

III. Student Services

A. Need for Financial Assistance

Adults with incomes below $10,000 per year are underrepresented in adult educational programs, and the extent of their underrepresentation bears a direct relationship to the extent of their financial disadvantagement. The modal income of the participants in AE in 1972 was $10,000-$15,000 per year with 30 percent falling in that income bracket (NCES, 1972).

The cost of education, including tuition, books, childcare, and transportation, is cited by over half of those interested in further education as a barrier to their continued learning (NCES, 1972). Cost is cited as a barrier most frequently by women, the poor, and younger potential learners (California, 1975; Central New York, 1975; Western New York, 1976).

Women are more likely than men to mention cost as a barrier to educational opportunity, 48 percent for women to 35 percent for men; and men are more willing to pay for their education than women, with 19 percent of the men but 50 percent of the women saying they cannot pay more than $45 per course (California, 1975). Yet there is no evidence that women learners come from lower-income groups than men. National figures show that 32 percent of white male learners report family incomes of less than $10,000 per year, compared to 35 percent of the women (NCES, 1972). The best explanation for the differences between men and women in their perceptions of the cost barrier seems to lie in cultural mores that accept education as more important for men and/or that men have more access to family income than women. In addition, women have less opportunity to obtain tuition reimbursement from employers, the GI Bill, or other sources. For example, among current continuing education students in Massachusetts (1973), 59 percent of males but only 24 percent of females said they were being reimbursed for their tuition costs, primarily by employers and secondarily by veterans' subsidies.

The issues surrounding financial need are complex. There is the question of the relationship between "real" and "perceived" financial need, and there is also some evidence that "willingness to pay" is not necessarily the same thing as "ability to pay." How much faith should be placed in the data showing how much respondents to a survey would be willing to pay for education is debatable. But the question is a popular one in market surveys. The CNS national study showed that while 23 percent indicated an unwillingness to pay anything, 42 percent said they would pay between $50 and $200 per course.

The California study (1975) showed that willingness to pay is related to income; 17 percent of those with incomes under $7000 compared to 2 percent of those with incomes over $15,000 said they could pay nothing. But Table 9 also shows that, especially in the cost range of $45 to $104 for a three-credit course, educational attainment is more closely related to willingness to pay than is annual income. Nevertheless, over 40 percent of those with annual incomes of $10,000 or more say that they can pay less than $45 for a three-credit course, and it is a common finding of state studies that even the most likely candidates for external degrees (those with some college education) cite cost as a major barrier to learning (California, 1975; Long Island, New York, 1976; Western New York, 1976).

The barrier of cost is a problem for higher education institutions as well as for potential learners. The study of resources conducted in Central New York (1975) reported that of six sponsors of educational services for adults the highest charges were made by institutions of higher education. And continuing education participants in Massachusetts (1973) state that they would take more courses if they were less expensive. But despite all of the confusion surrounding the data on financial need, most people would agree that we must be doing something right in the funding of non-traditional students. Consistently, in each of the six income

Table 9

Percent of Potential Learners Responding to Question, "What is the highest amount of money you would be willing to pay for a course . . . that provides three units credit?"

	Educational attainment					Annual income			
	11th grade	hs grad	Col. 1-3yrs	Col. grad	Post-grad	Under 7,000	7,000 9,999	10,000 14,999	Over 15,000
Can't afford anything	26	10	8	2	0	17	8	9	2
Less than $45	38	37	38	28	26	31	34	37	38
Between $45 - $104	8	19	24	36	44	23	16	20	32
$105 and more	5	9	10	20	13	12	18	14	10
Not sure/No answer	22	25	19	13	18	18	25	19	19

Source: Adapted from California, 1975, p. 58.

brackets below the $10,000 mark, low-income learners are overrepresented among those receiving public funding for their education (NCES, 1972). Cumulatively, 23 percent of the total participants in AE reported family incomes below $10,000, but 50 percent of them received public funding for their educational activities. Those with annual incomes of $10,000 to $25,000 were overrepresented in employer-funded education with 54 percent of adult learners in that middle salary range but 64 percent receiving funding from employers. Those with salaries over $25,000 were overrepresented in self-supported education and that supported by professional associations. The higher income groups ($15,000 and over), although receiving some public support for education, represented 30 percent of the AE participants but only 19 percent of those receiving public funding (NCES, 1972).

B. Needs for Educational Information and Guidance

Adults are quite clear in their desire for more and better information on educational opportunities, and many want a wider range of counseling services than is now usually provided. The authors of a California study of postsecondary education alternatives for adults (Peterson & Hefferlin, 1975) conclude:

> Of all the needs for expanded postsecondary opportunities in California, *the most critical is simply information about existing opportunities.* Large numbers of people know that they want to study something, but they have no convenient way or no central location to find out the options available to them. (p. 56)

Perhaps one-fourth of all potential learners do not know where to go or whom to ask to get expert advice about a course or program (Iowa, 1976; Western New York, 1976). Even when they say they know where to go for advice, many adults do not have the specific information they need in order to undertake learning; for example, 28 percent of the adults surveyed in the Central New York study (1975)

said they did not know what courses were available in their area. The lack of specific information about educational opportunities presents an obstacle to learning participation for perhaps 15 to 20 percent of potential learners (CNS, 1974; New York, 1977).

That information which adults do have about program offerings appears to be limited largely to knowledge of traditional school and college courses. The Northeast New York study (1974), for example, found little knowledge about non-traditional programs and services in the region. At best, less than one-third of the respondents had even heard of SUNY's Empire State College (31 percent of past users of adult education programs and 19 percent of nonusers); and only a handful were aware of New York State's Regents External Degree Program (6 percent of nonusers and 15 percent of past users). Thus, adults have scant information about the very programs that were intended to meet their special problems and learning needs.

A majority of potential learners--and substantial numbers of those describing themselves as not currently interested in learning--express interest in receiving additional information or counseling on adult learning opportunities (California, 1975; Central New York, 1975; Iowa, 1976). For example, 85 percent of adults in the Central New York study said they would like to be kept better informed of continuing education offerings, even though nearly three-fourths of the respondents said they knew about courses in their communities. In the New York study (1977), 70 percent of potential learners said they would find counseling services useful and 47 percent said they did not have enough information about local continuing education courses.[21] The desire to receive counseling services is also high among those already participating in formal continuing education programs (presumably those who already have high access to information); nearly two-thirds of continuing education students in

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[21] In the Western New York study (1976) only 37 percent of the potential learners said they would like to talk to someone for advice and information on educational matters. It may be that many more adults want assistance but do not find a traditional counseling session suitable.

Massachusetts (1973) and over half of those in Northeast New York (1974) wanted more information on education programs.

Persons who have job-related learning interests are slightly more likely than other potential learners to say they do not have enough information and to feel that counseling services would be useful to them. A third of the respondents in the New York study said they would be very likely to consult an adult education counselor about job-related courses. In addition, 29 percent said they would be very likely to consult a counselor about financial assistance for education (New York, 1977).

One reason many potential learners do not have information about adult learning programs even when they say they know where to find help is that educational programs are not disseminating information in ways which will get the attention of adults against the background of competing voices for their attention. This is evident from the reports of those who are participating in institutional continuing education programs, where a majority said they found the programs through their own search of schools in the area (Massachusetts, 1973). In the Central New York study (1975), would-be learners wanted educational providers to make greater use of the media to disseminate information. In New York (1977) the popularity of radio and television for receiving adult education information was highest among those with the least formal education and the lowest income levels. Seventeen percent of those with eight or fewer years of education but only 3 percent of college graduates felt that radio or television was the best method for obtaining information about AE opportunities. But the best method may vary with locale. In the Central New York study (1975), 38 percent most preferred information from newspapers and 27 percent preferred printed bulletins; but in New York as a whole (1977) only 19 percent preferred newspapers while 50 percent preferred mailed notices.

In addition to impersonal information channels, adults want personal sources of advice but may not get them. The Central New York study (1975) notes that although a majority of respondents named school

or college counselors as sources they would seek to use, counselors may be available only during daytime hours when working adults cannot see them. Also, counselors attached to a particular institution may be unaware of educational opportunities in another institution, in a non-traditional program, or in a nonschool organization. And there is always the suspicion, well-founded or not, that college-employed counselors may be reluctant to refer an individual to a "competing" organization.

Adults are often unaware of the functions and services of counseling agencies that are available to them. Noting a sense of confusion about the functions of advisement centers, the Western New York study (1976) suggests,

> It is highly possible that this confusion is shared by persons not interested in using such services. Perhaps their lack of interest is in part due to vagueness about the functions of such services. (p. 125)

When adults are made aware of the opportunities for new kinds of counseling services, many express a high degree of interest in new services. In particular, adults would like assessment and testing of their interests, competencies, and skills (California, 1975; Iowa, 1976).[22] In California, 31 percent of potential learners were interested in obtaining an assessment of their personal competencies; 28 percent of potential learners wanted to have their strengths and weaknesses in various subjects and skills tested. The desire for assessment and testing services is especially prevalent among less well-educated and poorer would-be learners (California, 1975). Only 15 percent of potential learners and 39 percent of all respondents in California said they would not be interested in any educational services.

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[22]Among major state studies, only the California and Iowa studies specifically queried adults about their interest in new types of educational services, such as assessment of competencies, testing of skills, evaluation of work experiences for credit, and so forth.

The unmet need for informational and counseling services is especially great among disadvantaged would-be learners. The disadvantaged, especially those with low levels of education (in several studies the poor and the elderly as well), are much less likely than other potential learners to know where to get advice (Iowa, 1976; Western New York, 1976). They are less likely to have specific information about course offerings (Central New York, 1975; New York, 1977), and are less likely to have used counseling services in the past (Western New York, 1976). Yet potential learners with low levels of schooling express more desire for information and counseling services than do better educated adults; similarly, nonwhites want counseling services more often than do whites (New York, 1977; Western New York, 1976). Table 10 compares knowledge about advisement services and desire for them, by educational level, for the Western New York survey.

Table 10

Knowledge of and Desire for Advisement Services, by Educational Level

Education level	Percent knowing location of advisory & information sources	Percent desiring to discuss adult learning activities with someone
0-7 years	29	47
8-11 years	62	
12-15 years	75	37
16 or more years	92	27

SOURCE: Western New York, 1976, pp. 113 and 121.

In summary, most needs assessments verify the existence of substantial interest in more information about educational opportunities. The demand seems to be not so much for traditional counseling services as for simple, direct, up-to-date information about courses, costs, schedules, locations, etc. There is probably widespread agreement among learners and potential learners as well as sponsors of educational services with the California conclusion: "Of all the needs . . . *the most critical is simply information about existing opportunities.*"

In addition, there seems to be a rising interest in some of the new services that are offered by counseling and assessment centers. Not many state studies asked adults about their interest in the assessment of personal competencies, and few adults are aware of emerging opportunities to convert prior learning into educational credits through assessment procedures. However, where respondents were asked about their interest in some of the new activities, there appears to be significant interest.

Aside from the efficiency arguments for letting people know what learning opportunities are available to them, there is evidence that the poor and educationally disadvantaged have special needs and interests in getting help and information in matching their capabilities and interests to educational and job opportunities.

C. Needs for Orientation and Other Support Services

Although most state studies have not given much attention to needs for support services such as job referral, childcare, and school reentry orientation, there is some evidence that a high demand for such services exists.

Because many potential learners want to pursue learning activities in order to obtain new jobs or advance in their current jobs, job referral and employment counseling and placement services are a needed adjunct to adult educational programs. At least a quarter of all potential learners want to use learning activities to get a new job, either inside or outside their present employment (CNS, 1974; Northeast New York, 1974). Interest in learning in order to get a new job may be much higher where unemployment is high, as it was in Western New York (1976) where 45 percent of past or potential learners either had participated or wanted to participate in learning activities to help them get a new job.

Potential learners who want to change jobs are interested in obtaining career advisory services. According to a recent study of career guidance and counseling needs in the United States, most

adults in a career transition (those seeking work or considering a job change) are interested in undertaking vocational or professional studies, and most want career services of all types (Arbeiter, undated). These adults are particularly interested in obtaining specific information on available jobs or career options. Over 50 percent of adults in career transition in the Arbeiter study expressed high interest in services which provide lists of available jobs and facts about career fields. Similarly, in the Western New York study (1976), 52 percent of those interested in changing jobs felt that educational counseling was very important to them in preparing for a new job; no doubt many of these individuals also would like assistance afterwards in getting a job. Among those desiring to change jobs, the least educated express the greatest interest in job counseling services (Arbeiter, undated; Western New York, 1976). Nolfi and associates (1974) argue that job referral and employment counseling are crucial for minorities, high school dropouts, and the unemployed, in order to link educational courses with jobs.

Most adults interested in changing jobs, however, do not know about agencies offering job or career help in their communities; those who are aware of such agencies are mostly familiar with traditional counseling sources such as college placement centers or state employment services (Arbeiter, undated). Moreover, as the Western New York study (1976) notes, far fewer counseling facilities are available to those learners who are not full-time students in daytime education programs.

The need for childcare services is indicated by the fact that in most studies one in six to one in four women potential learners named childcare problems as a learning barrier (CNS, 1974; California, 1975; Iowa, 1976; Northeast New York, 1974). Women between 26 and 35 years of age and nonwhite women are particularly likely to feel that childcare problems hinder their participation in learning programs (California, 1975; Colorado, 1975; Western New York, 1976). Many of these women agree that the provision of childcare services would

make it easier for them to participate in learning programs (Colorado, 1975; Western New York, 1976). However, in two studies where the question of obstacles to learning participation was open-ended, smaller proportions of women named lack of childcare as a barrier to learning (Florida, 1976; Central New York, 1975). It would appear that the need for childcare is real but not as salient as the overriding problems of cost and time--or perhaps it is one of those barriers that is simply accepted because "nothing can be done about it."

The studies do not assess the specific need for orientation/school reentry programs, nor are most adults likely to recognize the utility of such services. Yet the need for orientation services is suggested by the fact that lack of confidence or a feeling they are too old prevent some potential learners--and many more of those saying they are not interested in learning--from undertaking learning. Among those who would like to engage in learning, about 2 to 12 percent lack self-confidence in their ability to learn, 2 to 17 percent feel they are "too old to go back to school," and about 6 to 11 percent feel they do not have enough energy or stamina to study. The less well-educated, nonwhites, the elderly, and the poor are more likely to feel personally incapable of returning to school (California, 1975, CNS, 1974; Colorado, 1975). Orientation programs could help overcome the negative self-images of many of these adults.

Those who *say* they are not currently interested in further learning are even more likely to have negative attitudes toward themselves. For example, nearly one-fourth of nonpotential learners in Western New York (1976) and nearly one-fourth of all respondents in Iowa (1976) (two-thirds of whom were nonpotential learners) said they were too old to learn. Those saying they are not potential learners are also more likely to list health problems as a learning barrier. But less than one-third state that lack of interest in learning is the reason they do not want to participate in a learning activity (Iowa, 1976; Western New York, 1976). Clearly,

even to say one wants to participate in a learning activity requires a measure of self-confidence and a belief that learning is an appropriate activity for oneself--attitudes that many nonpotential learners do not now have. Orientation programs will not help these individuals, since only those ready to learn will attend such programs. What is needed is a way to build confidence and change attitudes about learning in the wider society; perhaps guidance services and programs at the workplace might reach some of these individuals. It is also likely that the more often one's friends and neighbors participate in learning, the more one may consider learning activities for oneself.

Other support services which appear to be needed include provisions of places where adults can study in quiet, and remediation of learning deficiencies. Of potential learners in California (1975), 14 percent said they would use an adult education center as a place to study; 12 percent said they would use it to receive training in basic skills.

IV. Measurement of Educational Accomplishments

A. Recognition of Non-Traditional Learning.

A majority of potential learners want some kind of credit or recognition for completing a learning program (CNS, 1974; Colorado, 1975; Florida, 1976; New York, 1977).[23] This may be academic credit toward a college degree or high school diploma, credit toward a skill certificate or license, or merely a certificate of satisfactory completion.

A third or fewer of the potential learners want credit toward a college degree--associate, bachelor's, or advanced (Central New

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[23] In the Central New York study (1975) only 46 percent of potential learners wanted some kind of credit for learning.

York, 1975; CNS, 1974; New York, 1977).[24] Interest in college-degree credit is higher in states in which colleges are numerous and the population is relatively well educated. In Florida, 28 percent of potential learners desired college credit; and in California, 35 percent of potential learners desired college credit--the highest of any study.

Those who want degree credit are, once again, similar to those who want college-level courses and prefer a college location. In terms of modal profile, the greatest number of those seeking college credit have had some postsecondary education but have not completed a college degree, are under 35 years of age, and are in professional or sales/clerical occupations (California, 1975; Iowa, 1976).

Interest in college degree credit is most strongly related to level of education and prior exposure to college. In California, for example, 20 percent of potential learners who are high school graduates but 46 percent of those who have had one to three years of college want college-degree credit. Those with one to three years of college are most interested in baccalaureate credit. College graduates (a much smaller number than those with some college education) appear to want college credit as much as or more than do those with incomplete college education; however, as we would expect, they are primarily interested in postbaccalaureate credit (California, 1975). Level of interest in college credit drops among those who have postgraduate education, yet they still show much more interest in college credit than do high school graduates. At the same time, a larger proportion of postgraduates than of any other potential learners are not interested in any kind of credit or recognition

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[24] Desire for credit toward a college degree appears to be more widespread than is the desire for a complete degree program (California, 1975; Florida, 1976). This is because many adults want college credit units for a teaching credential, for proof to employers of skills upgrading, or just for their own satisfaction. However, the relationships between demographic characteristics or subject preferences and interest in college degrees appear to be similar to those for interest in college degree credit. The present discussion is based largely on degree-credit interest, since there is more information available on this factor.

for learning; if they do not want advanced degree credit, they generally do not care about any kind of credit (California, 1975).

Among those desiring college credit, interest in associate of arts degree credit is relatively low. In many state studies, half or a third as many potential learners wanted credit toward a two-year college degree as wanted credit toward a bachelor's degree, and in only one study, Central New York (1975), did more respondents say they wanted two-year college credit than wanted baccalaureate credit. One reason may be that the associate degree has a lower legitimacy and economic value than the older degrees.

Interest in a college degree is partly dependent upon perceived ease in attaining the degree. In a study in Northeast California (1972), adults' acknowledged interest in a college degree increased after they were offered the option of a more flexible external degree program.

Majorities or near majorities of those who want to study education, engineering, health sciences, law, or management and business skills seek college credit (CNS, 1974; Iowa, 1976). Not all of these individuals seek to pursue a college degree; many (especially those who want to study education) want college credit in order to obtain a credential, get relicensed, or obtain other certification of professional competence. On the other hand, few potential learners who choose vocational, personal, recreational, or home-and-family subject areas seek college degrees (Iowa, 1976).

Through study on their own or in non-traditional arrangements, many adults have already mastered skills or knowledge for which they want credit or other recognition. In order to gain such recognition, these adults need certification procedures that measure learning apart from, and independent of, the learning context. In studies which examined this potential service, interest in obtaining certification of prior learning appears to be relatively high among potential learners and even among those not now interested in further learning, with one-fifth to nearly one-half of all potential learners interested in some form of certification of past learning (California, 1975; Illinois, 1973). This is so, we would guess, because certification in our credentialed society is a prerequisite for many jobs. Interest in certification of past learning (or learning currently

pursued in noneducational settings) appears to be especially high among current continuing education learners, adults under 50 years of age, and those with some postsecondary education, for whom such certification would hasten their completion of degree requirements (California, 1975; Iowa, 1976; Massachusetts, 1973). In Massachusetts, for example, 72 percent of continuing education students in higher education institutions said they would be interested in courses that give credit for experience outside the classroom. In the Medsker study (1975), credit for life experience was a definite attraction to students in programs offering this service.

Several ways have been developed to certify learning acquired outside of educational institutions, including use of standardized examinations, validation of student experiences, compilation of a record of past learning experiences, and competency-based measures. The form of certification most acceptable and most familiar to potential learners (and most like traditional educational practices) is the use of standardized examinations. The tremendous growth in recent years of the College-Level Examination Program and of the New York Regents External Degree Program is evidence of the demand for certification of prior learning. In Illinois (1973), 47 percent of the respondents expressed interest in credit by examination. Somewhat related is testing to obtain advanced standing in a program of studies. In the California study (1975), 18 percent of potential learners and 11 percent of all respondents were interested in this service.

Another less traditional method of certification is the validation of an individual's learning experiences, including those obtained on the job or in the military. This may be accomplished through documentation (including letters from employers and reports by the individuals) that indicate learning achievement. In California (1975), 14 percent of potential learners and 9 percent of all respondents were interested in the evaluation of noncollege experiences for credit toward a degree. In the Iowa study (1976), 14 percent of all respondents and 39 percent of current continuing education students were similarly interested.

A major new certification service is the development of a credit bank--the compilation and maintenance of a record of an individual's educational accomplishments, including learning attained in various educational institutions and perhaps in job experiences and other nonschool settings. This record permits persons who have learning experiences from scattered sources to assemble a comprehensive picture for the use of employers or institutions. The credit bank often validates these experiences by awarding or recommending credits for items in the record. In California (1975), 16 percent of potential learners and 11 percent of all respondents were interested in this service; in Iowa (1976), 10 percent of all respondents but 39 percent of current continuing education students were interested.

Finally, certification may be based on competency-based measures which assess an individual's actual performance of learned skills. Certification based on skills performance would appear to be especially desirable for adults who want to learn through on-the-job training and other less formal ways. However, use of competency-based measures for formal certification of learning remains limited, and none of the state studies examined interest in such service very carefully. Moreover, like many new counseling services, this certification option (and, in fact, any type of certification of prior or nonschool learning) is generally unknown to adults, and therefore their interest in these services may become apparent only when information about the services is more widely disseminated.

In summary, of all of the needs surveyed in state studies, the desire for credit and validation of nonclassroom learning is the most difficult to assess, primarily because very few adults are aware of the new options available to them.

There is substantial interest in certification in our credentialed society, and it is not surprising that learners interested primarily in upward job mobility should express interest in the visible payoff for education. Where the rewards of learning are largely intrinsic, as in learning for hobbies or for advanced professional expertise,

there is less desire for certification than in learning activities where the primary motivation is to gain some advantage with employers. To the extent that educational credits are useful in the job market, there will no doubt continue to be interest in and some pressure for some type of formal recognition for adult learning.

IV. PROGRAM RESPONSES TO LEARNER NEEDS

A national survey of non-traditional programs revealed that the great upsurge of interest on the part of colleges and universities in non-traditional education occurred around 1970. Ruyle and Geiselman (1974) estimated that by 1972 between 35 and 40 percent of American colleges and universities had launched one or more programs that were non-traditional in some respect--most frequently with respect to the type of students served. The survey revealed that only 7 percent of the programs reported were in existence prior to 1962, while 62 percent had been established since 1969-1970. It is a safe guess that in the five years since the Ruyle and Geiselman study the number of new programs and the diversity of services offered have increased.

Although the education of adults has a long history, the recent surge of interest is a worldwide phenomenon sparked in this country by the changing social mores, the shifting age distribution of the populace, and the leadership of a number of national agencies and commissions, including the Commission on Non-Traditional Study (1973), the Carnegie Commission on Higher Education (1973), the American Council on Education (1972, 1974), and the Office of Education (Newman, 1971, 1973).

Despite the national visibility given to the education of adult part-time learners, the design and implementation of programs have been mostly grass-roots affairs, characterized by enormous range and diversity of program characteristics. Today, in 1977, it is virtually impossible to describe a "typical" non-traditional program for adult part-time learners, and increasingly difficult to describe the

diversity in a neat scheme of classification. Yet if non-traditional programs are to be evaluated on the basis of how well they serve non-traditional students, then both programs and educational needs of students must be described adequately. Numerous attempts at describing non-traditional programs by devising typologies and classification schemes have been made, and a brief review of past typologies will be helpful here.

One of the early attempts to make conceptual sense out of the variety of programs emerging under the banner of "non-traditional" was made by Valley (1972) who described six models: administrative-facilitation model, modes-of-learning model, examination model, validation model, credits model, and complex-systems model.

The *administrative-facilitation model* is the oldest and most common non-traditional degree program. It is exemplified by the evening college. The primary departure from traditional education lies in administrative arrangements that facilitate *access* to college degrees for adult part-time learners. Courses are scheduled when working students can attend; counselors are available on weekends and evenings; registration can be handled by mail; class periods take the form of one three-hour session instead of three one-hour sessions, etc. In other words, the standard degree program is made possible and convenient for adult learners. New technologies are now adding to the convenience. Television and video- and audio-tape cassettes can deliver a standard college course into the home or place of work, and telephonic links with the class and instructor on campus can make the pursuit of a degree off campus very similar to that on campus. Correspondence study is also a form of the administrative-facilitation model as long as it adheres to customary degree requirements.

The national survey completed for the Commission on Non-Traditional Study (Ruyle & Geiselman, 1974) showed that programs that were non-traditional with respect to type of students served and location of instruction were the most common departures from traditional education, with 70 percent of the reporting institutions describing a special

program as non-traditional with respect to type of student served (uaually adult part-time learners) and 67 percent claiming a non-traditional location (off campus). To the extent that students are served within traditional degree requirements, the programs would be considered administrative-facilitation models in the Valley typology.

The *modes-of-learning model* is basically a modification of *curriculum*, designed to meet the learning interests of adults, but administrative arrangements for off-campus locations, scheduling, and the like are also generally made. The Bachelor of Liberal Studies degree of the University of Oklahoma would be one well-known example of the modes-of-learning model. As indicated in the name, the degree is a different degree from the traditional degree offered by the University. In most programs of this type, the curriculum tends to be interdisciplinary, or at least departing from standard academic departmental disciplines. In some programs the curriculum is developed by students and faculty.

The Commission Survey (Ruyle & Geiselman, 1974) showed that less than half of the non-traditional programs (48 percent) claimed non-traditionalism with respect to content, and our familiarity with today's programs would indicate that modifying the curriculum of degree programs to meet special interests of adults is not a common procedure. Modifications in content are more frequently handled through noncredit offerings than through the complex design of an integrated special degree program.

The *examination model* is conceptually simple. If students can demonstrate on a series of examinations that they have knowledge comparable to that expected of college graduates, they will be granted a degree on the basis of their performance on examinations. What is required is that a delegated degree-granting authority establish the knowledge that is expected of college graduates and offer a credible set of examinations to measure such knowledge. The University of London has been offering an external degree since 1858. The New York Regents degree is the best-known examination model in this country.

It permits adults to earn associate and bachelor's degrees solely on the basis of examinations. In 1975, however, only 17 percent earned an AA on the basis of examinations alone, but 70 percent earned some credit by examination (Medsker et al., 1975).

The *validation model* is similar in concept to the examination model, but it permits a wider array of measures to determine the knowledge or competencies of the candidate. Students assemble a record of educational accomplishments, including courses taken elsewhere and noncourse learning accumulated through independent study, work experiences, and the like. Competencies and knowledge might also be demonstrated on oral, performance, or written examinations. When students have accumulated learning experiences and competencies adding up to some defined degree, their learning is "validated" and the degree granted.

The *credits model,* like the examination and validation models, is concerned with granting degree recognition for noncollegiate learning. In this case, an agency not offering instruction but empowered to grant degrees would vouch for the quality of credits accumulated elsewhere. The Office on Educational Credit of the American Council on Education is the closest approximation to a credits model in the United States. Although not a degree-granting agency, it recommends credit to degree-granting institutions. The Office sends a team of experts to examine courses offered by government, industry, unions, military, and the like, and publishes a guide of recommended credit.

The *complex-systems model* is just what the name implies, a combination of other models. It would include some of today's best-known non-traditional degree programs--Empire State College and Metropolitan State University, to cite but two. In the years since 1971, many institutions--traditional as well as non-traditional--have used concepts described in the Valley models as an eclectic approach to non-traditional programming. Most institutions, for example, make some administrative arrangements, usually flexible scheduling and off-campus locations to facilitate the access of working students

to degree programs. Many give recognition for some learning done elsewhere--other colleges, military courses, courses recommended by the ACE Office on Educational Credit. And a substantial majority of traditional, as well as non-traditional, colleges and universities grant at least limited amounts of credit by examination. In other words, most non-traditional programs today probably fall into Valley's complex systems model.

Houle (1973) developed a three-model historical typology of external degrees that can be likened to the Valley models. Historically, the first external degree was the *extension degree* which was devised to facilitate the access of working adults to degree programs through administrative arrangements. As such it is similar to Valley's administrative-facilitation model and is epitomized by evening and extension colleges. The *adult degree* was then devised to avoid "treating experienced men and women learners as though they were still teen-agers" (Houle, 1973, p. 9). The curriculum, methods, and administrative arrangements were developed with the concerns and lifestyles of mature students in mind. Houle's adult degree may be likened to Valley's modes-of-learning model; the University of Oklahoma's Bachelor of Liberal Studies serves as a good example of this type of response to the special needs of non-traditional learners. Finally, Houle tentatively groups recent (since 1970) structural and procedural changes of non-traditional programs under the term *assessment degrees*. Assessment degrees redefine the measures of learning and encompass Valley's examination, validation, and credits models.

One further typology should serve to illustrate the evolving attempts to describe or type non-traditional degree programs. Studying 16 extended degree programs in depth, Medsker et al. (1975) arrived at a four-model classification scheme. The *extended-campus approach* is typified by evening and extension programs and is comparable to Valley's administrative-facilitation model and Houle's extension degree. The *liberal studies/adult-degree approach* is comparable to the modes-of-learning and adult degree models already discussed. It goes beyond administrative facilitation to devise special curricula to meet the interests of adult learners. The *individualized study approach* goes beyond the adult degree approach in recognizing the great diversity of adult backgrounds and goals.

It is characterized by some of the well-known new programs such as Empire State and the Community College of Vermont that emphasize student-initiated learning contracts and the use of community resources. Finally, the *degree-by examination approach* was included in the Medsker typology to accommodate the New York Regents External Degree program. It is directly comparable to Valley's examiniation model.

While there is considerable comparability across these typologies, their major contribution lies more in their presentation of a picture of the historical evolution of a concept than in their usefulness as classification schemes for today's non-traditional degree programs. The most recent typology, the four-model scheme developed in the Medsker study, shows quite clearly the evolutionary phases of development in non-traditional education--from adminstrative arrangements only, to adding special curricula for adults in general, to specialized arrangements and curricula for individuals, to the idea of measuring learning wherever or whenever it occurs.

While Houle looks at the evolution in an historical context, it can also be looked at as a continuum of departure from traditional degrees or as increasing accommodation to the needs of individual learners. Educational programs for adults have moved ever closer to the definition of non-traditional study proposed by the Commission on Non-Traditional Study (1973). Non-traditional education, said the Commission,

> Puts the student first and the institution second, concentrates more on the former's need than the latter's convenience, encourages diversity of individual opportunity rather than uniform prescription, and deemphasizes time, space, and even course requirements in favor of competence and, where applicable, performance. (p. 15)

Such a concept calls for starting with student needs and *then* creating programs to respond to such needs. Recently, non-traditional programs have evolved in the direction of putting student needs first and institutional needs second, in moving toward increasingly individualized programs,

and in deemphasizing procedural and administrative concerns in favor of learning concerns.

Program responses, however, have now reached the point where change and diversity are so great that existing typologies fail to address today's needs. In their study of 16 extended degree programs, the Medsker team noted with frustration the problems of defining clear non-overlapping categories. Indeed, on a continuum of program responsiveness to learner needs, the third Medsker category of individualized study can be said to include the administrative conveniences of the first category, *and* the curricular responsiveness of the second category. While the typologies that have been developed do convey an evolving educational philosophy--dominated by the motive to respond directly to learner needs--they do not provide adequate vehicles for *describing* programs. Recent "types" tend to incorporate all or most of the conveniences from earlier types, thus maximizing category overlap for recent models of non-traditional education. We believe that the most fruitful approach at the present time is to develop a program component profile that will accommodate constant change and the growing diversity in program design.

We propose to do this through devising a classification that will permit the description of any given program as a *profile of program components*. Profiles may be simple, unidimensional programs such as the typical evening college which responds to adults' needs for flexible scheduling through administrative facilitation, or programs may show multidimensional profiles that use components from administrative, curricular, and assessment categories of today's typologies.

We have drawn from three resources in developing the Program Response Profile presented in Chart A. First, we owe a debt of gratitude to the conceptualizers of non-traditional programs who preceded us. Their analyses provide an inclusive framework which defines the parameters of non-traditional education. Second, we have drawn heavily from the innovative program features developed by grassroots practitioners to meet the particular needs of their clientele. Third, we have used the cataloging and taxonomy efforts of researchers who have refined classifica-

tion schemes through factor analysis and other analytical treatments. The systematic analyses reported in the literature, however, help only in refining *sub*-categories of our program responses. To our knowledge, no one has yet attempted to apply factor analysis to the program components of the total spectrum of non-traditional programs to see if reasonably independent dimensions emerge, but it is an idea whose time may have arrived. Nevertheless, we found the work of taxonomists of considerable value in constructing subcategories for our profile of program responses. The motivations of adults in undertaking further education, for example, has been extensively studied over the years (as we noted earlier), and that background forms the basis for our subcategories of student motivations and curricular options. Likewise, the National Center for Higher Education Management Systems (NCHEMS) has done considerable work on standardizing the descriptive terms used in adult education. We could not find nor devise any more useful or inclusive set of instructional methods than that worked out by Collier and Roberts (1976).

The major categories (Roman numerals) of the program responses presented in Chart A are familiar as common categories used in the major typologies of the past. Certainly Category I, making *administrative accomodations* with respect to convenient schedules and locations, is a hallmark of a majority of non-traditional programs. It is so basic that the term "time-free, space-free learning" is frequently used as a synonym for non-traditional education.

Category II, *teaching/learning considerations,* makes provision for describing the instructional methods and delivery mechanisms appropriate to the backgrounds and motivations of adult learners. And it also includes curricular innovations and modifications designed for adult learners. Included in Category II would be Houle's and Medsker's adult degrees and Valley's modes-of-learning models, all of which represent curricular accommodations to the needs of adults. The individualized study approach identified by the Medsker team has both curricular and teaching methods components and, as such, it too would draw heavily from the components of Category II. It should be noted that the individualized study approach,

for example, also draws components from Category I. It *necessarily* incorporates administrative accomodations. The advantage of the component approach to describing programs is that multidimensional programs (which are *most* programs today) are best described by using non-traditional components from categories I, II, III, and IV in Chart A.

Category III, *student services*, represents a major characteristic of non-traditional programs which has not been given explicit recognition in past typologies, but continues to grow in importance. Student services, such as financial aid, counseling, and orientation, have been recognized as important features in traditional education, but somehow have not been highlighted until quite recently in non-traditional education. Some of the newest forms of noninstructional services for adults are freestanding, not connected to institutional programs. Others, however, are integral parts of the programs. An example of a freestanding service is the educational brokerage that helps put learners in touch with a wide range of learning opportunities. An example of a student service that is an integral part of a program is the orientation function for reentry women. Whether freestanding or integrated into a total program, the use of Category III permits us to describe nontraditional responses to the noninstructional needs of part-time learners.

Category IV represents the assessment component which has been recognized in previous typologies. Many programs today utilize components from all three of the Valley assessment models--examination, validation, and credits. And most non-traditional programs today include one or more new approaches to assessment.

The purpose of the component approach presented here is more to *describe* than to classify programs. For evaluation purposes we are not so much interested in concluding that a given program is primarily Type I with overtones of Types II and III[25] as we are in obtaining an accurate description of the program and ultimately in determining which parts of these complex programs are effective for which students. Conceptually, the match between the needs profile of a group of students and the compo-

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[25]There are almost no "pure" types left today.

nents profile of programs should correspond for maximum effectiveness. In fact, the extreme concern with "market surveys" these days is an attempt to match program offerings and services to student needs and interests. Where a program can identify a target group of learners with relatively homogeneous needs profiles, the range of components offered can be fairly limited. At the other end of the continuum of program complexity might be the very large programs that offer a maximum number of alternatives in the effort to meet the broad spectrum of learner needs.

The program components which appear in Chart A have been devised by grassroots practitioners, by state agencies, and by national agencies and foundations in an effort to meet the educational needs of adult part-time learners. They appear to be directly responsive to the needs of non-traditional learners as those needs have been identified and verified by the needs assessments described in Section III of this report. The descriptions and definitions which follow are not intended to be exhaustive in portraying *all* of the responses devised to meet student needs. Rather we have concentrated on communicating the ideas behind the program responses, by presenting a few examples. Under category C-1, for example, we have indicated that credit-by-examination is one non-traditional measure of educational accomplishment. But the variety of examinations that could be used is very great indeed. It would serve no purpose to describe the range of possibilities. What we are trying to illustrate is the mechanism that has been used to respond to the needs of nontraditional learners for new measures of educational accomplishment. The categories in Chart A have been "tried for fit" against a sample of today's programs for adult part-time learners. We believe that almost any program developed for adult part-time learners can be described by using the categories of Chart A to compile a *profile* of response components. The section which follows will provide a more thorough definition and understanding of the descriptive categories of Chart A.

I. Administrative Accommodations

A. Scheduling.

The oldest and most common adminstrative arrangement to accommodate the needs of working students is non-traditional scheduling. In the Commission study of non-traditional programs (Ruyle & Geiselman, 1974) 88 percent of the programs offered schedules that departed in some manner from traditional daytime classes. *All* of the extended degree programs studied by the Medsker team (1975) offered scheduling modifications.

It is not difficult to develop a continuum of scheduling flexibility ranging from very slight concessions to completely student-determined schedules. Major checkpoints on a continuum of departure from traditional scheduling might look something like this:

1. Hour-long classes meeting three times per week in the evening.

2. One three-hour class meeting once a week in the evening.

3. Block scheduling on weekends or several times a year.

4. TV or radio classes offered on regular schedules but repeated or available on tape.

5. Self-paced learning within a standard semester or term.

6. Open-entry/open-exit schedules in which students may start and complete a unit of study at their convenience.

In variations 1, 2, and 3, the student must be present at a prescheduled time, but the times are geared to the needs of working students. Option 4 offers the flexibility of providing for circumstances in which a student can "catch up" with a missed session. Option 5 requires no attendance at scheduled classes, but the student must complete the work within a prescribed period of time, usually a semester. The semester-bound form of self-pacing is as prevalent in traditional daytime programs as it is in non-traditional programs, maybe more so, because it provides for differential *rates* of learning as well as offering scheduling flexibility. Self-paced learning, it should be

noted, is not necessarily flexible with respect to anything except pacing. Programmed learning and Keller-plan courses (see Cross, 1976), for example, are highly prescribed with respect to content and method. Independent study projects, on the other hand, are largely student-determined with respect to content and method as well as scheduling. Still, many if not most independent study projects are semester-bound.

Option 6, open-entry, open-exit schedules offer maximum flexibility as far as scheduling is concerned. The student may start and conclude the work at his or her convenience. Demonstration of completion of the work may be determined by assessing competencies or by the satisfactory completion of various tasks or obligations.

In presenting schedules along a continuum of flexibility, there is no intention to imply that maximum scheduling flexibility is necessarily "better than" minimum flexibility. Many students, especially the less well-educated, prefer a schedule that imposes a certain amount of discipline upon them. If self-discipline is felt to be a problem, Option 1 may be the most satisfactory scheduling option, because it offers the most frequent externally imposed checkpoints. For the learner who has plenty of self-discipline but a cyclical or unusual schedule of other responsibilities, Option 6 may be the best answer.

While scheduling can be usefully analyzed as a separate dimension on non-traditional programming, it obviously interacts with locations, methods, and content. Scheduling Options 5 and 6, for example, are not possible in a standard lecture/discussion format, and Option 1 would be impractical in certain types of vocational or crafts courses where longer periods of time are needed to complete laboratory work.

Alternative scheduling possibilities constitute an important dimention of non-traditional programming. The Medsker (1975) study found that a majority of students already participating in the extended degree programs studied were satisfied with the scheduling flexibility offered in their program. Our synthesis of data from state and national studies (pp. 43-48) shows that up to 25 percent of potential learners still check scheduling problems as a barrier to their continuing educa-

tion. Furthermore, well-educated, highly motivated learners are still citing scheduling problems as a barrier to continuing education. Since many of the more academically oriented subjects do adhere to more traditional daytime, semester-bound schedules, the scheduling complaints of well-educated adults who are more likely than other adults to be interested in "academic" learning, may be justified. Nevertheless, scheduling flexibilities are increasingly common in both traditional and non-traditional education. The use of self-paced learning modules is the most rapidly growing innovation in traditional education (see Cross, 1976), and self-pacing and scheduling flexibilities have a very bright future in non-traditional study as well.

B. Locations.

Another hallmark of non-traditional education is represented by off-campus locations. Like scheduling, flexibilities with respect to locations are administrative arrangements made to make access possible or easier for adult learners. While scheduling is a critical variable for adults with home and job responsibilities, location is critical for a somewhat different set of adult learners--the handicapped, elderly, geographically isolated, prisoners, parents of small children, those without transportation, and the like. The fairly simple variable of physical accessibility to learning opportunities has a demonstrated effect upon educational participation in both traditional and non-traditional education (Bashaw, 1965; Bishop & Van Dyk, 1977; Koos, 1944; Trent & Medsker, 1965; Willingham, 1970). Certainly, recommendations and the trends in recent years have been to take education to students in a wide variety of forms--free-access colleges, extension classes, community learning centers, on-the-job training, colleges without walls, media-delivered education, etc. Like scheduling, options with respect to location could be put on a continuum of flexibility, ranging from presence required at a given place to completely student-determined locations.

There are two dimensions to consider in evaluating how well non-traditional programs are responding to the needs for alternate locations

for non-traditional students. One dimension has to do with physical *accessibility*, the other with *flexibility*. Most of the responsiveness of non-traditional education to the needs of adult part-time learners has centered around off-campus locations such as extension classes, regional learning centers, media-delivered education, and the like. The problem addressed is accessibility and convenience. Taking the classroom to the student rather than vice versa is a response to the special needs of location-bound learners. But the physical convenience of learning locales also opens up new opportunities to people who could, with varying degrees of difficulty, make it to a college campus, but who probably wouldn't--hence the popularity of downtown learning centers, work sites, home-delivered education, courses on commuter trains, etc. Some of these locales are convenient but inflexible, i.e., the learner must present herself or himself physically at the place where education is being delivered. Other non-traditional locations may be determined by the learner. The old-fashioned, highly portable textbook remains one of the most flexible forms of putting students in touch with learning resources--which is what location is all about.

Choices with respect to location interact strongly with content and method. Indeed, the interaction of location with content is probably much greater than is generally recognized by traditional education's adherence to the classroom as the standard location for all kinds of learning. On-site learning, hands-on learning, and experiential learning all refer to *qualities* of the learning experience that should be considered in evaluating the component of "location." There are even instances where "convenient" locations should probably be given low ratings. For example, if an art appreciation course is taught completely in the classroom of an urban college (because everyone is there anyway) when a fine museum exists in the city, an evaluation should probably question whether the program is utilizing the best educational resources available.

Location is an important component of non-traditional education, having an impact on everything from opportunity to the quality of learning. For descriptive purposes, learning locations can be described as on-campus, off-campus (community, work site, home, or other locale), or student determined (Chart A). In evaluating the responsiveness of alternate locations to learner needs, however, the effectiveness of the utilization of learning resources should be considered as well as the dimension of convenience and accessibility for the learner.

II. Teaching/Learning Considerations

A. Methods and Delivery Mechanisms.

In 1976 the National Center for Higher Education Management Systems (NCHEMS) and an advisory group representing the Coalition of Adult Education Organization (CAEO) undertook a joint project to develop a framework for describing adult education and higher education programs within the context of postsecondary education (Collier & Roberts, 1976). One of the descriptive dimensions for which they developed a taxonomy is "delivery mechanisms." This category describes "those methods employed in delivering educational programs to the learner" (p. 51). The work of NCHEMS/CAEO provides a solution to our quest for a scheme for describing the methods used in non-traditional programs. The following categories, definitions, and examples are taken directly from Collier and Roberts (pp. 52-54):

1. Distance Teaching/Independent Study

Those methods in which the learner is isolated from the learning situation by reasons of time, distance, etc. It typically involves a systematic program of study which is conducted primarily through the use of written materials (although mass media devices may also be used). There is generally limited personal contact between the teacher/agent and the learners, with most interaction taking place through written communication. The instruction tends to be individualized rather than focusing on a group of learners and normally enables students to progress at their own pace.

Examples: Correspondence Schools
Home Study

2. Instructional Materials/Devices-Based Instruction

Those methods in which there is no direct personal contact on the part of the learner with any teacher/agent. The learner utilizes electronic, mechanical, printed, or multimedia materials/devices which have been specifically prepared to provide instruction, and the amount of interaction of any kind that takes place is determined by the capabilities of the materials or devices utilized. The instruction tends to be individualized rather than focusing on a group of learners and normally enables students to progress at their own pace.

Examples: Computer Assisted Instruction
Programmed Instruction
Telelecture
Auto-Tutorials
Audio-Video Cassettes

3. Directed Individual Study

Those methods in which the student learns a set of skills or gains knowledge in a one-to-one situation from a teacher/agent. In some cases, the teacher/agent actually teaches and in other cases the learning process is facilitated by the teacher/agent through direction or supervision. This method involves direct personal contact and a high degree of interaction between the learner and the teacher.

Examples: Library Directed Study Programs
Student-Centered Curriculum Study
Private Instruction (languages, piano lessons)
Tutorial Learning

4. Directed Experiential Learning

Those methods which provide the learner an opportunity to acquire or apply previously acquired knowledge and skills in a supervised situation that approximates or duplicates the conditions under which the knowledge/skills will be used. The instruction is typically individualized with a high degree of interaction between the student and the supervisor.

Examples: Apprenticeship
On-the-Job Training
Work Experience Programs
Performance Based Education
Hospital Internship
Practice Teaching
Practicums

5. Classroom

Those methods which utilize a sequence of learning experiences arranged in a systematic order of predetermined duration, generally structured around a limited segment of a particular body of knowledge. The teacher/agent is charged specifically with the general direction, organization, and control of the learning experience. Classroom instruction generally focuses on the instructional needs of a group rather than of individuals, and interaction is provided for between the student(s) and/or the teacher/agent.

6. Seminar/Workshop

Those methods in which the responsibility for learning is shared by the group members and the teacher/agent(s) or in which the group applies prior knowledge in addressing a problem or issue. This method generally involves a group of persons who meet, under the direction of one or more teacher/agent(s), to discuss topics of

mutual interest and concern. This method includes Discussion Groups. The duration of the activity will vary with the nature of the content and purposes of the group.

Examples: Topic-related Seminars
Forums
Task-oriented Workshops

7. Laboratory

Those methods in which knowledge is acquired and/or applied in a learning activity that is an artificial construct of reality. Laboratory instruction generally focuses on the group rather than individuals and allowance is made for interaction between the student and the teacher/agent.

Examples: Language Laboratories
Art Studio/Laboratories
Science Laboratories

8. Assembly

Those methods which involve a group of individuals too large to permit effective face-to-face interaction. Assemblies are generally specifically structured learning situations which involve a single independent or series of independent events in which there is limited participation by the learner, and the major control of the learning situation is held by the teacher/agent.

Examples: Lectures
Community Gatherings

9. Mass Media Instruction

Those methods in which instruction is provided for a general, nontargeted audience through mass media. Major control of the learning experience is held by the teacher/agent, and there is no interaction intended or allowed for.

Examples: Educational Television Networks (unless part of a correspondence course)
Newspaper courses (unless part of a correspondence course)

10. Nondirected Experiential Learning

Those situations in which the learner acquires knowledge or skills through independent experiences. There is no formal interaction between the learner and a teacher/agent, but interaction does take place between the learner and individuals encountered in the education experience, as well as between the learner and the

actual surrounding (i.e., viewers of original art work in galleries and displays in museums).

Examples: Cultural Exchange Programs
Learning Through Independent Experiences
Do-It-Yourself Learning

While not all of the methods defined by NCHEMS/CAEO (based upon adaptation from Verner, 1962) are used in degree programs, most non-traditional programs offer a variety of methods, and some programs give students some experience with all ten methods listed above.

One of the findings of the Medsker (1975) team, for example, was that

> In all programs . . . students reported having experienced a remarkably wide range of different learning modes. This suggests that while in any one program there may be special emphasis on preferred modes of instruction, a number of other modes of instruction are available, and students do take advantage of them. (p. 70)

As a matter of fact, one of the most dramatic methods innovations to emerge from the non-traditional movement is the learning contract which can, and often does, utilize all of the methods described above. Because the learning contract is so important to the non-traditional philosophy, a brief illustration of a learning contract may be helpful as an adjunct to the NCHEMS/CAEO methods taxonomy. The student entering Metropolitan State University to cite one model, develops with the help of a faculty advisor an Educational Pact setting forth his or her educational goals, the competencies to be mastered, the learning strategies and the evaluation methods that will be used to determine the attainment of the goals. There is no formal curriculum, but students are encouraged to develop competencies in five areas: basic learning and communication, civic involvement, vocation and career, leisure and recreation, and personal growth and self-assessment. The learning contract is really an individually tailored non-traditional program. As such it, like any other non-traditional program, may be described by a profile consisting of components from the methods, content, and assessment categories.

B. Content/Curricular Options.

In 1972 fewer than half (48 percent) of the college and university programs described as "non-traditional" departed from traditional curricula (Ruyle and Geiselman, 1974). But the most visible and dramatic models of non-traditional education are distinctive with respect to the content or curriculum offered. Many people associate the names of Empire State College, Metropolitan State University, University Without Walls, University of Oklahoma, and of course the British Open University with the non-traditonal movement, whereas evening colleges, community colleges and other programs that offer traditional subjects (sometimes in very non-traditonal ways), to non-traditional students are frequently over-looked as "non-traditional" programs.

Despite the fact that degree programs adjusting the curriculum to the special interests of adults serve only a handful of the non-traditional students in the country, they have been exceptionally influential in the leadership of the non-traditional movement. Indeed Houle's historical typology of non-traditional programs (1973) is characterized largely by curricular changes and flexibility. From a traditional curriculum based in the academic disciplines (extension degree), adult education moved to a special curriculum designed for adults (adult degree) and then on to the assessment degree, which frequently, but not always, permits students to tailor the curriculum to their individualistic needs.

The philosophy of non-traditional education emphasizes gearing education to the needs and goals of learners. As we have seen in Section III, the content interests of learners are extraordinarily diverse. Yet our study of existing non-traditional programs indicates that curricular approaches can be adequately described by a fairly tight typology. The major differntiation occurs over the matter of who designs and prescribes the curriculum, and this ranges from student-determined (with the guidance and approval of faculty) to sponsor or college prescribed.

Student-determined curricula are usually designated a learning contract, a degree plan, or some other terminology that indicates an or-

ganized educational plan that generally includes learner goals, learning strategies and resources, knowledge or competencies, time schedule, and assessment measures. Learning contracts may be highly individualized, and the content agreed upon may depart greatly from the usual discipline-based curriculum. On the other hand, a student may elect to design a rather traditional sequence of subject matter courses, using the contract largely to attain flexibility in delivery methods or administrative arrangements.

Most non-traditional programs offer a pre-set curriculum that is defined or prescribed by the sponsor. It may be a traditional academic curriculum with standard breadth and depth requirements or a prescribed occupational program, or it may be an interdisciplinary course of study geared to the general education interests of adults.

The one possible model that lies between student-determined and sponsor-determined curricula is the curriculum that is jointly developed by students and faculty. From time to time some small experimental programs have worked out a curricular plan which reflects group interests and which faculty and students then pursue, usually for a year. To our knowledge this approach represents such a small fringe of programs that a separate category is not justified to describe today's curricular models. Furthermore one can argue that a group-designed program is sponsor-determined whether the defining group consists of all faculty or faculty and students. Once decided upon, all students follow essentially the prescribed model.

Matching existing non-traditional programs against the content/curricular typology, we find that all of the programs can be described using the following categories.

a. Primarily student-determined i.e. learning contract

b. Primarily sponsor-determined

   (1) Academic

   (2) Adult liberal learning

   (3) Occupational/professional

   (4) Other

III. Student Services

The need for non-instructional services to facilitate student access to educational opportunity has emerged in recent years as a major component in non-traditional education. A number of states are considering the desirability of establishing statewide information, counseling and referral services; private and consortium brokerage services are springing up spontaneously; numerous proposals for entitlement funding for life-long learning are hotly debated in Washington; competition for adult learners is sufficiently intense that new attention is given at the program level to recruitment, financial aid, orientation programs and a host of other special services that will help adults make good use of the opportunities available.

As we have seen from the analysis of learner needs described in Section III of this report, non-instructional services are frequently as important to adult learners as the more instructionally oriented components included in our discussion of content and methods. Lack of funds, lack of information about available opportunities, and lack of self-confidence in returning to college are all mentioned by substantial numbers of potential learners as barriers to their continued education. The program responses to these needs are categorized under the headings of financial assistance, brokerage and counseling services, and orientation programs.

A. Financial Assistance

The response of non-traditional programs to the financial needs of students has lagged far behind responsiveness to other student needs. Indeed it is probably fair to say that not only is there a failure to respond in non-traditional ways to the financial needs of adult learners, but traditional financial aid sources have been slow to respond to part-time learners who constitue the "new majority" in higher education.

The special report of the ACE Committee on the Financing of Higher Education for Adult Students (1974) concluded that,

> Regardless of family income, [adult] part-time students on the whole are massively discriminated against in federal and state student and institutional aid programs, social security survivors' benefits, institutional tuition rates and financial aid programs, and income tax requirements. (p. 3)

As recently as 1973, only four state needs-based student aid programs offered eligibility to part-time students. In 1975-76, part-time students received 17 percent of state student aid dollars, and by 1976-77, an estimated 25 percent of aid funds were awarded to part-time students (ACE, 1974; Winkler, 1976). There is now a general awakening to the financial needs of part-time students whether in traditional or non-traditional programs. And the whole question of financial assistance for adult learners has become a hotly-debated and highly controversial issue, especially in state and federal government.

It is far beyond the scope of this paper to present the numerous proposals and analyses that have been offered within the last year or so. Good descriptions and rationales of some of the foremost proposals for Federal entitlements can be found in Report Number Four, edited by Kurland (1977) and issued in March 1977 by the Education and Work Group of NIE under the title *Entitlement Papers*.

Our emphasis in this paper is on the responses of non-traditional programs and in the case of financial aid, there has not been much response at the program level to the special financial needs of adults. Indeed the irony of the financial component of non-traditional education is that many institutions launching programs to attract non-traditional learners did so more in the anticipation that adult students would provide institutions with financial assistance than vice versa. That expectation is, in part at least, responsible for the "marketing" philosophy in which the increasingly competitive providers of educational services are eager to be responsive to the needs and interests of potential "buyers." There is some evidence that adults are a plus in the financing of education. The Medsker team (1975) found that student tuition and fees in non-traditional programs amounted to 75 percent of the costs of education versus about 28 percent for traditional programs.

There is, of course, one advantage to the relatively small public investment in adult education, and that is that the providers of adult education have had to be more responsive to the needs of their clients then is the case for traditional education. But the bad news is that as continuing education becomes both more popular and more necessary for adult learners, the educational gap between the "haves" and the "have nots" will continue to grow in the absence of public financial intervention. The data are quite clear that adult learning programs are serving the privileged members of society out of proportion to their numbers in the population.

The concept that is beginning to surface is that financial aid for adult students requires something quite different from a simple expansion of traditional financial assistance. The entitlement plans presently under discussion emphasize the necessity of centering the financial support on students rather than institutions, thus enabling adults to make their own decisions about where they wish to pursue learning and where they wish to get the information and guidance that will enable them to make intelligent decisions about the use of the opportunities available. The diversity and decentralization of both instructional and support services for adults is another factor that necessitates a rethinking of present financial aid programs.

The issue of financial aid is in great flux right now. Indeed it may not be too harsh a judgement to say that financial aid programs, whether traditional or non-traditional, are in general disarray. Francis Keppel, chairman of the National Task Force on Student Aid Problems was quoted in the Chronicle for Higher Education (April 1, 1975) saying that " as the volume and variety of needs have increased, the system has proliferated into a luxurient tangle of programs, policies, and procedures that has become all but impenetrable even to professional aid administrators, let alone to students, the systems' intended beneficiaries."

For descriptive purposes we may have to content ourselves with a purely temporary way to deal with program responses to the financial

needs of students. Today's models are derived from piecemeal expansions of traditional financial aid programs, and while these approaches to the problem are not satisfactory, the fact is that the response of non-traditional programs to the needs of adult part-time learners for financial assistance can be adequately described by the following categories:

1. Traditional financial aid including loans, grants, and scholarships.

2. Employer contributions which include union-negotiated benefits, released time, tuition rebates, etc.

3. Employer sponsored programs which are almost inevitably job-related and which may involve a contract with an educational agency.

4. Free tuition which is the model most often used by public community colleges which serve growing numbers of degree-oriented adult learners.

B. Brokerage and Counseling Services

The availability and adequacy of counseling and information services has a powerful impact on access to educational opportunity. When traditional colleges, especially community colleges, revised their instructional schedules to meet the demands for evening and weekend classes on the part of non-traditional learners, they usually staffed counseling offices during evening and weekend hours as well. For many public colleges today, the hours of operation are given as 7:00 a.m. to 10:00 p.m. and that means that both instructional and counseling services are available whenever the college is "open." This is basically an "administrative arrangements" model. It makes traditional services available at times and places that are convenient for adult part-time students. But questions are now arising as to whether the simple expansion of traditional services is adequate to the needs of adults.

The foremost group taking the position that totally new models of support services are needed for non-traditional learners is the National Center for Education Brokering established in 1976. The Center acts as a "brokers' broker" with a mission to provide a central clearinghouse

to coordinate communication among agencies involved in advising adults and to "catalyze efforts to further popularize and gain support for the brokering idea." (National Center for Educational Brokering, Vol. 1, No. 1, Jan. 1976).

"Educational brokerages are best described as go-betweens or intermediaries which serve to help adult students find their way into and through the experience of postsecondary education" (Heffernan, Macy, and Vickers, 1976, p. v). The functions of the educational broker and the client objectives which they serve are described by Heffernan, Macy, and Vickers (1976, p. 3) as follows:

- Define goals for personal and working lives.
  The broker's function is to facilitate personal assessment, value clarification, occupational exploration, and long-term planning by the client. This requires the broker to have capabilities for counseling and for evaluating career alternatives.

- Set objectives for further education.
  The broker's function is to facilitate a choice by the client of the competencies and/or the certification (diploma, degree, license) to be obtained. To do this, the broker utilizes assessment techniques and information on additional skills and credentials needed to achieve clients' personal goals. Also investigated is whether formal learning experiences or other kinds of learning experiences are most appropriate.

- Select learning experiences to achieve competencies and certification.
  The broker's function is to facilitate a selection by the client of specific learning activities. The broker needs information on all programs in local secondary and higher educational institutions, proprietary occupational institutions, manpower agencies, social and cultural agencies,

business and industry training centers, and, often, learning resources represented by people in the community itself.

- Gain access to appropriate learning opportunities. The broker's function is to facilitate the client's working through the procedures for admission and financial aid, and securing equitable recognition for prior learning. This requires that the broker be acquainted with key institutional personnel and procedures, be able to help clients present evidence of prior learning, and serve as advocate for them with individual institutions.

Obviously the functions of the educational broker are much broader than those of the traditional campus-based counseling service. Furthermore, the new brokerage idea is strongly concerned with the *access* issues of education which would appear to be a vital function for re-entry adults who, as we have seen, often do not know where to turn for information about educational opportunities or for advice in negotiating their entry into the increasingly diverse network of educational providers.

The services that have appeared within the past several years in response to the guidance needs of non-traditional learners may be on or off-campus and might be described and catalogued under the following headings:

1. Information about education and career opportunities.

2. Assessment of student interests and abilities.

3. Assistance in matching learner desires with educational opportunities.

4. Recruitment of underserved populations through outreach.

5. Advocacy to help students gain access to specific educational programs or courses.

C. Orientation Programs

Freshman orientation has long been a service carried out on traditional college campuses to orient entering students to life at the

college. Typically orientation has lasted anywhere from several hours to several days just prior to the opening of classes. Major purposes have been 1) to provide information about student services, the use of the library, class schedules, locations of buildings, etc. 2) to provide social opportunities for getting acquainted with other students, 3) to administer placement examinations, and 4) to introduce students to the educational missions and philosophy of the college. The orientation of re-entry adults would seem to call for a reconceptualization of the purposes and functions of orientation programs.

Unlike the student services of financial aid and brokering, the leadership for rethinking the role of orientation in non-traditional education has come, not from external agencies and groups, but from on-the-line program administrators rising to the needs of their students, many of whom have been out of the educational mainstream for years.

Looking across today's orientation programs, it seems possible to identify three major purposes: 1) to assist students in re-establishing possibly "rusty" academic skills 2) to assist students in developing positive perceptions of themselves as learners 3) to help students develop an educational plan.

Some examples of existing orientation programs may be helpful here. The College of Continuing Education at Roosevelt University conducts a Pro-seminar which is a six-credit hour course geared mainly to orienting or re-orienting inner city students to the world of academic study. Students work in simulated educational situations to experience their problems in returning to study and academic learning. The problems are both cognitive (basic communication skills) and affective (attitude about themselves as learners).

Another type of orientation emphasis that has become popular with the return of women to the classroom and the labor market is the confidence-building, consciousness-raising workshops designed to demonstrate to re-entry women that, despite some years of absence from the classroom, they are capable and competent learners.

Metropolitan State University in Minnesota conducts an orientation program designed to acquaint entering students with the philosophy of the college which emphasizes self-direction in learning. The task in this six week course is for each student to draft a Degree Plan which sets forth their learning goals, the strategies for reaching those goals, methods used to assess competencies, and educational content.

These brief sketches of a few non-traditional orientation plans illustrate the general movement in non-traditional orientation which is to provide the re-entry student with the skills and attitudes to accomplish their learning goals in a particular program. While programs may emphasize one or another of the orientation components, all of the programs we have examined may be described using three basic functions.

1. to establish or re-establish academic skills
2. to create positive learner attitudes
3. to develop educational plans

IV Measurement of Educational Accomplishments

The newest and probably most controversial component in non-traditional programs has to do with the measurement of educational accomplishments. Whereas traditional degree certification depends heavily on *process* measures i.e. documentation of courses taken, credit hours accumulated, residency requirements fulfilled; non-traditional programs are beginning to emphasize *outcome* measures i.e. competencies ahieved, skills learned, knowledge demonstrated.

The arguments for the use of outcome measures are similar, whether one is talking about traditional or non-traditional programs, but the pressure for alternative measures is much greater when adults are the students. In the first place, adults come to college with greater and more diverse backgrounds of learning than younger students, and in the second place, it may be necessary or desirable for adults to collect their learning experiences from a diversity of sponsors--employers, extension classes, work experience, community agencies, etc. Some form

of collecting, assessing, and certifying learning from a variety of sources is responsive to the needs of many "self-educated" adults.

A program or institution can hardly be classified as traditional or non-traditional anymore on the basis of its credit-granting priorities. The idea of granting credit for off-campus learning has spread rapidly over the last decade so that it pervades traditional as well as non-traditional programs. The difference probably lies in the extent to which the philosophy of granting credit for what the student knows, rather than where or how he or she learned it, dominates the educational philosophy. There also appears to be a hierarchy of acceptability, with a majority of institutions in the country granting credit-by-examination, many amenable to granting credit for non-collegiate learning, and relatively few programs yet willing to grant credit for experiential learning.

The major program responses to the needs of adult learners for recognition of off-campus learning can be described and discussed in three forms. Some of the most recent non-traditional responses incorporate all three certification components.

1. Credit-by-examination
2. Certification of non-collegiate courses
3. Assessment of experiential learning
   a. prior learning
   b. sponsored learning

In addition to these non-traditional assessments of educational accomplishments, there are of course many non-traditional programs adhering quite closely to traditional methods of crediting learning through grades, credit hours, and semesters.

1. Credit-by-examination. Credit-by-examination is now accepted in more than two-thirds of the non-traditional programs in the country (Ruyle and Geiselman, 1974). While any examination acceptable to the faculty might be used to assess student knowledge, the College Level Examination Program (CLEP) is the best-known and most widely used program of standardized examinations; it is used by two-thirds of all colleges granting

credit by examination (Ruyle and Geiselman, 1974). In 1975 almost 100,000 people showed up at some 900 test centers across the country to take one or more CLEP examinations in the expectation of receiving college credit from one of 1800 American colleges and universities offering credit for CLEP examinations.

Obviously the idea of granting credit on the basis of performance on a standardized examination has received widespread acceptance. But it is probably accurate to say that the acceptance of the practice is somewhat greater than the enthusiasm. At least 40 percent of the institutions surveyed in the Commission study (Ruyle and Geiselman, 1974) reported no encouragement to students to gain credit through examination; only 26 percent even publicized the availability of the opportunity, and most colleges place substantial limitations on the use of credit-by-examination.

The criticisms of granting credit by examination come from both the conservative and liberal wings of the educational establishment. On the one hand, critics contend that the tests are not an adequate substitute for the classroom experience, which presents a richer learning experience than can be documented by tests--especially nationally standardized tests with limited input from local faculty. Then too, there are a variety of criticisms ranging from technical matters such as norming to judgmental matters such as the amount of credit to be granted in various subjects. On the other hand, the liberal non-traditionalists are critical of the concept of credit-by-examination because it perpetuates the status quo, discouraging curricular and instructional innovations by trying to equate new forms of learning especially appropriate for adult learners to old forms of learning designed for traditional students. Keeton (1972, p. 141), for example, charges that the CLEP tests "are essentially abstractions from very traditional liberal arts and disciplinary objectives."

Despite criticisms from the right and the left, the examination model of non-traditional education seems to serve a legitimate need of adult learners, and traditionalists as well as non-traditionalists want to see some responsiveness on the part of colleges to the needs of

adults to demonstrate and receive credit for learning which would only be repetitious were they required to comply with standard course requirements. Furthermore there is broad philosophical agreement that the certification of learning should not be inflexibly tied to process variables. A report from the CAEL project (Willingham, Burns, and Donlon, 1974) puts it well,

> The academic credit hour is useful for educational accounting and marking student progress, but the credit system is widely criticized because it resists educational reform and places too much emphasis on the time serving character of the college degree. Direct assessment of student learning can be a powerful agent in promoting educational flexibility because it provides a mechanism for recognizing learning independent of the circumstances under which it was accomplished (p. 39).

The problems in granting credit by examination center around the state of the art of measuring learning. Examinations are the most familiar and therefore perhaps the most commonly accepted measure we have of educational accomplishment. Any evaluation of this response component of non-traditional programs would have to consider the usual technical issues associated with reliability, validity, and standards as well as the needs of adult learners and the credibility of the examinations with employers and educational programs to which students may transfer.

2. Certification of Non-collegiate Courses. The task force on lifelong learning of the Postsecondary Education Convening Authority (Hodgkinson, Kaplin, McNett, and Nolfi, 1977) identified 17 sponsors or providers of educational programs. While many of these providers are not interested in obtaining college credit for their students, some of the courses are clearly comparable to courses taught on college campuses, and for many students college credit would be advantageous. But the primary avenues for attaining credit are credit-by-examination or assessment of student competencies. If no examination exists that "fits" the course, the assessment process becomes expensive and its use increasingly unlikely.

Colleges have long accepted courses taught by other colleges as transfer credit. With the proliferation of the sponsors of learning, a question naturally arises concerning the possibility of credit for college-level courses taught by the military, employers, educational television, etc. For 30 years, the American Council on Education has operated the Commission on the Accreditation of Service Experiences (CASE) to evaluate formal courses offered by the military services to recommend the type and amount of credit that colleges might grant for completion of college-level military courses. In 1972, more than one-third of traditional colleges and universities granted credit based upon CASE recommendations (Ruyle and Gieselman, 1974).

In response to a recommendation by the Commission on Nontraditional Study, the ACE recently expanded its services by establishing the Office of Education Credit (OEC) which took on the formidable task of sending a team of subject matter specialists to the site of any organization wishing to nominate a course for a college credit recommendation from the OEC. In its first two years of operation the OEC evaluated over 800 courses offered by more than 50 organizations in every state in the nation, involving some 180,000 students. The OEC publishes a guide with recommendations with respect to the amount and category of credit which might legitimately be awarded. The "legitimacy," of course, derives from the national prestige of the ACE and from the standards established by the OEC for the evaluation of courses. (See Green and Sullivan, 1975 for a description of the process). Notice that this method of certifying learning adheres to the traditional model of certifying the quality of the teaching rather than the quality of the learning. As such it represents a rather traditional assessment of non-traditional sponsors.

3. Assessment of Experiential Learning. The most visible leadership for the national interest in assessing experiential learning has come from the CAEL project (Cooperative Assessment of Experiential Learning) which was established in the early 70's as a consortium of 250 colleges working with measurement experts from Educational Testing

Service to "develop through cooperative effort improved methods of assessment--methods that encourage flexible educational programs, assist the student in realizing educational goals, and provide an equitable and reliable basis for granting credit." (Willingham, Burns, Donlon, 1974, p. 1). A CAEL survey of some 3000 two-and-four-year colleges revealed about 350 programs actively pursuing ways to grant credit for experiential learning. Of these 97 percent give credit for non-classroom learning experiences which were sponsored by the college, while 40 percent awarded credit for prior learning which occurred before the student enrolled. Credit is given most often for sponsored work experience, with 90 percent of the reporting community colleges and 85 percent of the 4-year institutions reporting such credit.

There is clearly a difference between sponsored experiential learning over which the college exercises a high degree of control and prior learning over which the college has no control. Prior learning credit usually involves the older students in which we are interested--80 percent of those receiving credit for prior learning were over 21--whereas sponsored programs frequently involve younger students getting their first work experience through internships, cooperative education programs and the like.

The data from the CAEL survey show that the *methods* used to assess experiential learning are quite different for prior and sponsored learning. For prior learning the three leading forms of assessment are documentation, testimony from an external source, and structured interview or oral examination. For sponsored experiences, the leading forms of assessment are observation of the performance in a natural situation, supervisory assessment (non-academic), and diaries or written reports.

The methods for assessing experiential learning are varied. The CAEL project identified 18 separate methods in use today, (Willingham, Burns and Donlon, 1974) but they also published a useful compendium of 9 assessment techniques that seemed especially useful in assessing experiential learning (Knapp and Sharon, 1975). Included were per-

formance tests, simulations, assessment centers, essay examinations, objective written examinations, interviews, self-assessment, ratings, and project assessment.

The CAEL project distinguishes six stages of assessment in considering whether a student should receive credit for prior experiential learning. It is typically necessary to:

a. *Identify* the learning competencies to be assessed.

b. *Articulate* the learning to the educational goals of the student.

c. *Document* the participation of the sutdent.

d. *Measure* the extent and character of the knowledge or skill acquired.

e. *Evaluate* whether the skill or knowledge meets the standard and how much credit should be awarded.

f. *Transcript* an appropriate description of the learning and its assessment.

The amount of credit awarded for prior learning varies greatly, but about 60% of the institutions awarding such credit grant 10 hours or less per student on the average, although 14 percent of the institutions award an average of 30 hours or more per student. (Willingham, Burns, Donlon, 1974).

Unlike most of the other components of non-traditional programs, the new approaches to the measurement of educational accomplishments have come not from grass-roots practitioners but from national leadership heavily funded by private foundations or to a lesser extent by governmental agencies. Thus the response at the program level to measuring educational accomplishments has been largely a question of recognizing the need, accepting the tools developed by national programs, and legitimizing the concept of measuring outcomes. The names associated with the three approaches to assessment are CLEP and the New York College Proficiency Exams; the ACE Office on Educational Credit, and CAEL. There are, however, also some program names associated with

assessment degrees. Examples of these would be the New York Regents External Degree, Thomas A. Edison College, and the Connecticut Board for State Academic Awards. All three of these special programs use combinations of the assessment techniques described in this section.

V. SUMMARY AND IMPLICATIONS

The purpose of this review was to assess the state of knowledge about adult part-time learners and the programs designed to serve them. The primary sources of information were recent data collection projects sponsored by state and national agencies to determine the characteristics and needs of adult learners and potential learners. In addition, selected program descriptions were studied to determine current program responses to learner needs.

Our overall conclusion is that we know a great deal about a very narrow range of topics. The ubiquitous "needs assessments" that have dominated the study of non-traditonal students in recent years have been, by and large, replications of the pattern set a decade ago by Johnstone and Rivera (1965) and more recently by the (CNS) Commission on Non-traditional Study (Carp, Peterson, & Roelfs, 1974). With minor modifications, statewide assessments have used highly similar methodologies to ask essentially the same questions of more or less comparable samples of adults; have analyzed the results in similar formats, and come up with quite consistent findings. There are few inconsistencies to be resolved and few surprises to be explained. While the size of the potential market may differ from region to region, the basic pattern of adult needs and interests does not. The major findings derived from our study of available needs assessments can be summarized as follows:

- Interest in adult education is related to socioeconomic status. Those who actually participate in educational activities are better off (in terms of indicators such as

educational attainment, income, and job status) than those who express interest but are not participating, who in turn are better off than those who express no interest in further education. Past educational attainment seems to be the primary indicator of interest in lifelong education. The more education people have, the more they want and the more they are likely to get. Educational attainment is, of course, a complex variable incorporating motivation, opportunity, occupational and income status, ability, and other internal and external factors known to influence educational participation.

- Participation and interest in educational activities show considerable regional variation. Influential factors seem to be the opportunities available and the educational attainment of the populace. Regions with a high concentration of "free-access" colleges show high rates of adult educational activity. And opportunity, of course, sets off the chain reaction that raises educational attainment, educational expectations, and educational demand.

- Adults have a pragmatic orientation to education. They want to *use* education to improve their lives. If they don't have a good job, they want education which will enable them to get a better one. If they have a good job, they want the kind of education that will help them advance. If they have the material things of life, (or at least as much as they think education will help them to attain) they want education to enrich the quality of life.

- The kind of education desired is related to adult life stages. The young are primarily interested in preparing for their futures; the middle-aged are interested in enhancing present involvement with jobs, fammily, and

community; the elderly are interested in the use of leisure time.

- Education for adults must have high credibility. It must accomplish what they want it to accomplish--to give them job skills, to convince an employer of their merit, to help them raise a family or a garden, to help them find enjoyment in cultural pursuits or hobbies. Adults, on the average, are quite conservative in their educational tastes. The more dependent they are on external rewards, the less experimental they seem to be. Those who need education least to staisfy life's basic desires are the most experimental in their acceptance of departures from the traditional stereotypes of "quality" education. Thus radical reforms in education are likely to attract and serve the privileged members of society--at least until the reforms gain widespread credibility.

- Women are closing the educational gap between men and women, but there is some evidence that today's voluntary and largely self-supporting adult education is widening the gap between Caucasians and ethnic minorities and between the "haves" and the "have-nots."

- The diversity of the potential adult audience for education is enormous. Even relatively homogeneous demographic groupings show a great range of backgrounds, needs, and goals.

- There is a high correspondence between the "needs" identified in assessment studies and the component responses offered by non-traditional programs.

- There is great variety in the non-traditional programs studied. Such variety has made it increasingly difficult to identify "typical" programs or even to group programs into "typologies."

- The trend is toward *different forms* of education and services for non-traditional learners--as opposed to an expansion of traditional education to include adult learners. Many of the newest services e.g. brokerage services, creditation and validation measures, financial entitlements are designed and provided, not at the college and university level, but by non-profit agencies representing communities, consortia, and professional groups. Acceptance and legitimization, of course, occur at the local faculty and student levels.

All of the above conclusions can be considered confirmed and re-confirmed by state and national studies. They lead us to two observations:

1. We do not know nearly as much as we need to know about adult learning needs. Furthermore, we do not know as much as we *could* know from data already collected.

2. Although the problems of evaluating traditional school programs are difficult, the problems facing evaluators of non-traditional programs are infinitely more complex.

Let us analyze these assertions more carefully. The easy comparability across state studies simplifies the task of synthesizing the information, but the high degree of replication gives an unnecessary surplus of information about certain areas and a deficit of understanding about equally important matters. We recognize that the purpose of the state studies was to assess the needs of a particular state for planning purposes. They were not formulated as research projects designed to deepen our understanding of adult learning. Nevertheless with somewhat greater variety in method and analysis, we might have learned more about the underlying dynamics of adult learning needs, while at the same time providing information useful to the states. Since most of the studies reviewed herein were launched within a brief time span of one or two years, the

coordination of a richly varied approach would not have been possible even if desirable. It may be useful now, however, to make some suggestions for future state surveys since more are in the planning stages.

Since adult learning is largely voluntary, *motivation for learning* is a variable of primary interest. Furthermore it appears to hold the key to narrowing the educational gap between over-represented and under-represented populations. Yet, to date we have only rather superficial checklists of motives rather than any very adequate understanding of the dynamics that explain why those with low educational attainment lag so far behind those with higher educational attainment in their interest in and pursuit of educational opportunity. To know that the population groups that society is most interested in reaching--those with low educational attainment--are primarily interested in upward job mobility would lead us to emphasize job training, but it tells us little about why the poorly educated, who express an interest in job training, seem not to get around to registering for courses. A number of explanations have occurred to people. Among them are lack of knowledge about opportunities, lack of self-understanding about talents and goals, lack of self-confidence as learners, lack of money, dislike of school, lack of transportation and childcare, etc. These variables frequently appear in lists of "barriers" to adult participation. And we are quite likely to be given a cross-tabulation of perceived barriers by level of educational attainment. What we are *not* likely to find out is what common barriers are faced by those who have common interests (as opposed to those having common demographic characteristics) or why a given person expresses interest but fails to sign up.

The latter piece of information could be provided by greater variety in method e.g. why not some probing in-depth interviews to supplement survey data? The other piece of information could be provided by greater variety in analysis e.g. why not use something other than (or in addition to) demographic descriptors as independent variables?

The Iowa study (1976) is a commendable example of what can be done with more varied analyses of existing data. They used subject matter interest as an independent variable. This simple variation enabled them to present profiles of learners who expressed interest in a common subject. Profile 5, reproduced below, describes the potential market for education courses in Iowa.

The possibilities of getting much more information out of existing data are almost endless. While demographic descriptors are very useful for some purposes, we may have milked those data almost dry, at the cost of ignoring some other analyses that would be more helpful in designing and evaluating programs for non-traditional learners.

If programs are to meet the needs of *groups* of students, then some relatively homogenous needs profiles must be identified. The student needs toxonomy presented in Chart A provides some basis for identifying educationally relevant dimensions by which groups of students can be identified. For example, location is a variable which is primary to some underserved people--prisoners, physically handicapped, geographically isolated, etc. It would be useful to know what these location-restricted people want and need. Yet few studies have asked the right question or done the kind of analysis which would provide this simple display of information. But almost every study has analyzed the profiles of "women" for example, only to rediscover that women learners present a very heterogenous educational needs profile. It would be useful, we suggest, to display the profile of needs and characteristics of groups of adults with high priority or absolutely essential needs. For some potential learners, location is all important. For others, group instruction is a high priority need because their motivation is companionship and the opportunity to meet new people. In short, the profile of potential learners with critical educational needs has been neglected in the near-universal search for profiles of learners with common demographic characteristics. We would like to encourage

PROFILE 3

SUBJECT CHOSEN BY AT LEAST 1% OF THE STATE SAMPLE

EDUCATION (1.75%)
(teacher training for certification)

Who are they?

There is still a large reservoir of people in the field of education who want training or updating of skills: two-thirds female, professional in nature, who often belong to a teachers' union, and who are mainly 25-40 years old. Twenty eight per cent have a college education or beyond; an additional two-thirds have some college. Three quarters of them earn between $10,000 and $25,000. More than 3% are non-white. They tend to be spread all over, the largest group in moderate-sized cities.

How serious are they?

Very serious. Half plan to take a course in the next two years, mainly for job requirements or promotion, or to work toward a master's degree or school certificate. Increased income is a strong motive. They plan to spend a lot of money for this education: half expect to pay more than $2,500. They also expect to spend a good bit of time learning: 40% will devote 40 hours a week or more.

Under what circumstances can they learn?

Private colleges rank highest, trailed by the Regent's Universities Institutional prestige is a factor with them, unlike any other group. Fourteen per cent favor a college without walls format. Traditional day classes are also favored, but during a season when job responsibilities do not interfere. A good number like the idea of TV or radio classes, independent study, or correspondence study. Convenience in scheduling is probably the key to success in attracting these potential learners, particularly if offered by a prestige-laden private college.

What other subjects interest them?

Child development, consumer education, crafts, gardening, history, humanities, public affairs, sewing, sports and games, and travel.

What services do they want?

They don't need information or advice: they want credit toward a degree or certificate! They like the idea of assessment of prior informal learning, a credit bank concept, and testing of subject skills.

What problems do they face?

Cost is uppermost in their minds, together with home and job responsibilities, child care problems, and scheduling.

SOURCE: Iowa, 1976

future investigators to identify some target clientele based on the educationally-significant variables identified in the needs taxonomy.

We would also like to encourage future state studies directors, as well as other researchers, to vary the methods of data collection. The surveys have generally been good surveys, and a few have been exceptional, but surveys generally describe; they don't explain very much. A really good interpreter of data can tease out some partial explanations in the patterns of relationships between variables, but a skilled and sensitive interviewer can bring some new insights and launch some new hypotheses that would help all of us to move beyond description toward explanation.

The other distinct limitation of the survey in the field of non-traditional education is that its demands for quick, short answers can tell us what people know about, but it can't tell us much about how people would respond to something they don't know about. This is a particular problem with the cutting edge of non-traditional education because the average adult is way behind the average non-traditionalist in thinking about what is possible. Adults may look conservative because their knowledge of what is possible in education is 20 years out of date. Were we to explore new ways of asking our questions, we might find quite different responses. The point is that we are not making much progress in explaining the facts that we know exist. Miller, quoted by Rubenson (1977, p. 4) writes that "Without /better understandings/ we are condemned forever to repeating status surveys and refining our empirical categories to the point of meaninglessness."

The second observation arising out of this review has to do with the difficulty of designing evaluation studies of non-traditonal programs. We remain firm in our conviction that non-traditional education can and should be evaluated, but it is extremely difficult to do it using traditional measures--which are the measures we happen to possess right now. It seems clear to us that the non-

traditional programs most in need of sophisticated evaluation are not those representing a simple expansion of the college and university system to include persons previously excluded because of age. We agree with the Commission (1973, p. xv) that "non-traditional study is more an attitude than a system. . ." New attitudes about the goals and purposes of adult education are emerging, and evaluation is going to have to come to terms with that reality. Take, for example, the matter of educational achievement--an obvious candidate for evaluation in traditional education where young people are sent to school to learn a body of knowledge that will provide the background for learning more advanced knowledge in a basically linear school system. Much adult learning is not based on linear progression, and furthermore, the primary goal is not the absorption or retention of knowledge but the use of it. Once the role of traditional achievement measures is questioned, the issue of "standards" arises. When that spectre is raised, as it is increasingly, the enormous diversity of the goals and pruposes of non-traditional education forces us to a deeper analysis of "quality" education. The issues are not simple and the basic challenges of non-traditional education are setting off healthy chain reactions in both program development and evaluation design. We would like to urge evaluators and policy-makers and program developers to work very closely toward evaluating present efforts and improving future programs.

> Education to match our needs--as individuals and as a society--this is *everyone's* goal. We should work toward it enthusiastically, with a sense of commitment and with confidence that there are good and valid ways that do not lessen quality even when they are different from traditional standards.
>
> Samuel B. Gould
> in Diversity by Design, 1973.

REFERENCES

A. C. Nielsen Company. *Adult educational interest survey.* Northbrook, Ill.: Author, 1973.

American Council on Education. *Higher Education and the adult student.* Washington, D.C.: ACE, 1972.

American Council on Education. *Financing part-time students: The new majority in postsecondary education.* Washington, D.C.: ACE, 1974.

Arbeiter, S. *Career transitions: The demand for counseling* (Vols. 1 and 2). New York: College Entrance Examination Board, undated.

Atelsek, F. J., & Gomberg, I. L. *College and university services for older adults* (Higher education panel report No. 33). Washington, D.C.: American Council on Education, 1977.

Barlow, B. M., & Timiraos, C. R. *Colorado adult needs assessment* (Final technical report). Denver: Colorado Department of Education and State Board for Community Colleges and Occupational Education, 1975.

Bashaw, W. L. The effect of community junior colleges on the proportion of local population who seek higher education. *Journal of Educational Research,* 1965, *58*(7), 327-329.

Best, F., & Stern, B. *Lifetime distribution of education, work, and leisure: Research, speculations, and policy implications of changing life patterns.* Washington, D.C.: Institute for Educational Leadership, 1976.

Bishop, J., & Van Dyk, K. Can adults be hooked on college? *Journal of Higher Education,* 1977, *48,* 39-62.

Burgess, P. Reasons for adult participation in group educational activities. *Adult Education,* 1971, *22,* 3-29.

California Postsecondary Education Commission. *Through the open door: A study of patterns of enrollment and performance in California's community colleges.* Sacramento: Author, 1976.

Carnegie Commission on Higher Education. *Toward a learning society.* New York: McGraw-Hill, 1973.

Carp, A., Peterson, R. E., & Roelfs, P. J. Adult learning interests and experiences. In K. P. Cross, J. Valley, and Associates (Eds.), *Planning non-traditional programs.* San Francisco: Jossey-Bass, 1974.

Collier, D. J., & Roberts, C. *A framework and language for postsecondary education.* Boulder, Colo.: National Center for Higher Education Management Systems, 1976.

Correa, J. M. *Regional needs and resources for postsecondary education: A report of the northern region postsecondary education group.* Potsdam, N.Y.: Associated Colleges of the St. Lawrence Valley, 1976.

Commission on Non-Traditional Study. *Diversity by design.* San Francisco: Jossey-Bass, 1973.

Cross, K. P. *Accent on learning.* San Francisco: Jossey-Bass, 1976.

Dickinson, G., & Clark, K. M. Learning orientations and participation in self-education and continuing education. *Adult Education,* 1975, *26*(1), 3-15.

Eggert, J. D. *An examination of goals of potential and actual learners: University of Mid-American/State University of Nebraska* (Working paper No. 1). Lincoln: University of Mid-America/State University of Nebraska, Office of Research & Evaluation, 1974.

Florida Commission on Educational Outreach and Service. *Access to knowledge* (Vol. II: Supporting data). Tallahassee: State University System of Florida, 1976.

Green, M. F., & Sullivan, J. J. Credit for noncollegiate learning. *Educational Record,* 1975, *56*(4), 257-261.

Hamilton, I. B. *The third century: Postsecondary planning for the nontraditional learner.* Princeton, N.J.: Educational Testing Service, 1976.

Hefferlin, JB, Peterson, R. E., & Roelfs, P. J. *California's need for postsecondary alternatives* (First technical report, Part I). Sacramento: California Legislature, 1975.

Heffernan, J. M., Macy, F. U., & Vickers, D. F. *Educational brokering: A new service for adult learners.* Syracuse, N.Y.: National Center for Educational Brokering, 1976.

Heston, W. M., & Fantz, J. C. *Toward a comprehensive coordinated system of postsecondary continuing education for Long Island.* New York: Long Island Regional Advisory Council on Higher Education, 1976.

Hodgkinson, B., Kaplin, P., McNett, I., & Nolfi, G. *Report of the PECA task force on lifelong learning.* Washington, D.C.: Institute for Educational Leadership of George Washington University, 1977.

Houle, C. O. *The inquiring mind.* Madison: University of Wisconsin Press, 1961.

Houle, C. O. *The external degree.* San Francisco: Jossey-Bass, 1973.

Johnstone, J. W. C., & Rivera, R. J. *Volunteers for learning.* Chicago: Aldine, 1965.

Keeton, M. Dilemmas in accrediting off-campus learning. In D. Vermilye (Ed.), *The expanded campus.* San Francisco: Jossey-Bass, 1972.

Knapp, J., & Sharon, A. *A compendium of assessment techniques.* Princeton, N.J.: Educational Testing Service, 1975.

Koos, L. V. Local versus regional junior colleges. *School Review,* 1944, *5,* 525-531.

Kurland, N. *Entitlement papers.* Washington, D.C.: Education and Work Group, National Institute of Education, 1977.

Medsker, L., Edelstein, S., Kreplin, H., Ruyle, J., & Shea, J. *Extending opportunities for a college degree: Practices, problems, and potentials.* Berkeley: Center for Research and Development in Higher Education, University of California, 1975.

Morstain, B., & Smart, J. C. A motivational typology of adult learners. *Journal of Higher Education,* in press.

Moses, S. *The learning force: An approach to the politics of education.* Syracuse, N.Y.: Educational Policy Research Center, Syracuse University, 1969.

National Center for Educational Brokering. *Bulletin, a monthly newsletter.* Syracuse, N.Y.: Author, 1976.

National Center for Educational Statistics. *Participation in adult education, final report 1969.* Washington, D.C.: Author and Department of Health, Education, and Welfare, 1974.

National Center for Educational Statistics. *Participation in adult education, final report 1972.* Washington, D.C.: Author and Department of Health, Education, and Welfare, 1976.

National Center for Educational Statistics. *Participation in adult education, final report 1975.* Washington, D.C.: Author and Department of Health, Education, and Welfare, in press.

New York State Education Department (University of the State of New York), Division of Continuing Education. *New York State continuing education needs assessment* (Report No. 1: Statewide analysis). Albany: New York State Education Department, 1977.

Newman, F. *Report on higher education.* Washington, D.C.: Department of Health, Education, and Welfare, 1971.

Newman, F. *The second Newman report: National policy and higher education.* Cambridge: Massachusetts Institute of Technology Press, 1973.

Nolfi, G. J., & Nelson, V. I. *Strengthening the alternative post-secondary education system: Continuing and part-time study in Massachusetts* (Vol. II: Technical report). Cambridge: University Consultants, 1973.

Nolfi, G. J., Nelson, V. I., Eaglin, F., & Miller, M. Profile of selected clientele needs and characteristics. In Commonwealth Task Force on the Open University, *Toward an open learning network for the people of Massachusetts* (Preliminary report). Boston: Author, 1974.

Nurnberger, R. G. *A profile of need: A study of post-secondary education needs in northeastern New York State.* Albany: College of General Studies, State University of New York at Albany, 1974.

Okes, I. E. *Adult education in the public school systems: 1968-69 and 1969-70.* Washington, D.C.: Newsletter Services, August 1976.

Peterson, R. E., & Hefferlin, JB. *Postsecondary alternatives to meet the educational needs of California's adults* (Final report). Sacramento: California Legislature, 1975.

Randall, M. E., Pailthorp, K., & Bigelow, M. L. *Postsecondary education in the Tri-Cities.* Olympia: Washington Council for Postsecondary Education, 1976.

Regents External Degrees. 1975 catalog. Albany: University of the State of New York, 1975.

Robinson, K., & Herdendorf, P. S. *Final report on the survey of public demand/need for postsecondary continuing education for adults (lifelong learning programs) in Western New York.* Buffalo: Project Impact, The Western New York Postsecondary Continuing Education Study, 1976.

Ross, G. R., Brown, R. D., & Hassel, M. *Clientele study for the proposed State University of Nebraska (SUN)--a multi-media off-campus collegiate program.* Lincoln: University of Nebraska, 1972.

Rubenson, K. *Participation in recurrent education: A research review.* Paris: Organization for Economic Cooperation and Development, 1977.

Russell, D. Memo to Dr. John Wilcox, Analysis by age of respondent. Cornell Institute for Occupational Education, Ithaca, New York, undated.

Ruyle, J., & Geiselman, L. A. Non-traditional opportunities and programs. In K. P. Cross, J. R. Valley, and Associates (Eds.), *Planning non-traditional programs.* San Francisco: Jossey-Bass, 1974.

Trent, J. W., & Medsker, L. L. *The influence of different types of public higher institutions on college attendance from varying socioeconomic and ability levels.* Berkeley: Center for Research and Development in Higher Education, University of California, 1965.

Treseder, C. *A survey of attitudes toward higher and continuing education in northeastern California.* San Jose: Diridon Research Corporation, 1972.

Valley, J. R. External degree programs. In S. B. Gould & K. P. Cross (Eds.), *Explorations in non-traditional study.* San Francisco: Jossey-Bass, 1972.

Verner, C. *Adult education theory and method: A conceptual scheme for the identification and classification of processes.* Chicago: Adult Education Association of the USA, 1962.

Vivona, R., Miringoff, M., & Watsky, C. *Adult post-secondary continuing education in the Mid-Hudson region: Increased access to improve the quality of life.* Poughkeepsie, NY: Associated Colleges of the Mid-Hudson Area, and New Paltz, NY: Mid-Hudson Region Continuing Education Project, 1975.

Waniewicz, I. *Demand for part-time learning in Ontario.* Ontario, Canada: Ontario Educational Communications Authority, 1976.

Wilcox, J., Saltford, R. A., & Veres, H. C. *Continuing education: Bridging the information gap.* Ithaca, N.Y.: Institute for Research and Development in Occupational Education, Cornell University, 1975.

Willingham, W. *Free-access higher education*. New York: College Entrance Examination Board, 1970.

Willingham, W., Burns, R., & Donlon, T. *Current practices in the assessment of experiential learning* (CAEL working paper No. 1). Princeton, N. J.: Educational Testing Service, 1974.

Winkler, K. J. States giving record sums to student-aid programs. *Chronicle of Higher Education*, October 1976, *14*(6), 6.

Appendix A

STUDIES OF CHARACTERISTICS AND NEEDS OF POTENTIAL LEARNERS

Appendix A describes major surveys of adult potential learners (that is, adults who express interest in participating in adult education). The Appendix describes these potential learners' demographic characteristics and their educational needs and interests, as well as the stated purposes of the studies, study sponsors, and samples and methods utilized in the surveys.

In order to provide an indication of the sophistication and complexity of the survey designs, the chart shows the number of categories provided for each variable by the survey questionnaires. For example, the chart shows that in the California study (1975), the questionnaire had five categories for racial/ethnic group and provided a list of 17 barriers to learning. (Note: The studies did not always analyze or report all the categories and variables on which they collected data.) When a question was open-ended, the number of categories which the study reported is given in parentheses.

Appendix A: Studies of Characteristics and Needs of Potential Learners

	CALIFORNIA (1975)	CENTRAL NEW YORK (1975)	COLORADO (1975)[1]
PURPOSES	Needs assessment Resources inventory Recommendations Evaluation of a proposal.	Needs assessment Resources inventory Proposed model for delivering AE counseling	Needs assessment Resources inventory Employer needs survey
STUDY SPONSOR	California Legislature	NY State Education Dept. (Funded under Title I, HEA)	Colorado Dept. of Education & State Board for Community Colleges & Occupational Education
SAMPLE	N=1048 persons, 18 yrs or older Probability sample	N=1502 persons, 18 yrs. or older and not full-time students	N=5337 persons, 16 yrs. or older & not enrolled in formal education Random sample
STUDY METHOD	Field interview	Field interview (largely open-ended)	Field interview
DEMOGRAPHIC VARIABLES[2]			
Sex	2	2	2
Age	12	4	7
Race/ethnic group	5	2	3
Education	7	8	11
Income	7	4	5
Occupation	open-ended (5)	open-ended (6)	4
Marital status	-	2	5
Rural-urban	-	2	-
Military status	-	-	-
Full-time student	yes	-	-
Part-time student	yes	yes	yes
DEFINITION OF POTENTIAL LEARNERS	Interested in "some form of further learning beyond high school"--within next two years	Select "things you might like to learn" in any of 7 broad areas named by interviewer (e.g., job-related subjects, home & family living); no time limit	(Not available)
POTENTIAL LEARNERS AS % OF SAMPLE	59%	97%	92%
NEEDS/DESIRES[2]			
Scheduling	(Included under methods)		8
Location	13	open-ended[3] (6)	6
Reason for location choice	7	-	-
Methods	("modes of learning") 13	open-ended[3] (10)	-
Subjects	open-ended (167 identified)	open-ended[3] (26)	-
Motivations/ reasons for learning	11	open-ended[3] (11)	4
Barriers	17	open-ended[3] (19)	-
Counseling & education services desired	12	(several questions on counseling interest)	2 (childcare, transpor.)
Credit	9	open-ended[3] (7)	2
Degree/diploma	-	4	-
Amount $ willing to pay	open-ended (9)	open-ended[3] (5)	5
Time per wk. willing to give	7	open-ended[3] (8)	5
Length of time willing to study	-	open-ended[3] (6)	6
OTHER[2]			
Knowledge of educational opportunities	-	open-ended[3] (several questions)	(several questions)
Self-confidence	-	-	How well do you learn? (several questions)
Evaluation of education	-	-	How was AE program helpful? (several questions)
Job satisfaction/interest in changing jobs	-	-	(several questions)
Want public $ for AE	-	-	-

Appendix A: Studies of Characteristics and Needs of Potential Learners
(continued)

	COMMISSION ON NON-TRADITIONAL STUDY (1974)	FLORIDA (1976)
PURPOSES	Needs assessment[4] (Related studies provide: Resources inventory Literature review, Recommendations)	Needs assessment[4] Resources inventory Employer needs survey Recommendations Literature review
STUDY SPONSOR	Commission on Non-Traditional Study (funded by Carnegie Corp. & Educational Foundation of America)	State University System of Florida and the Florida Division of Community Colleges
SAMPLE	N=2004 persons; $N_{weighted}$=3910; 18-60 yrs. and not full-time students. Probability sample.	N=881 persons, 16 yrs. or older Stratified random sample from phone directories
STUDY METHOD	Field interview	Telephone interview (largely open-ended)
DEMOGRAPHIC VARIABLES[2]		
Sex	2	2
Age	6	[illegible]
Race/ethnic group	6	[illegible]
Education	12	open-ended
Income	8	open-ended
Occupation	open-ended (12)	open-ended (13)
Marital status	4	4
Rural-urban	2	4
Military status	-	-
Full-time student	(yes) excluded from analysis	yes
Part-time student	yes	yes
DEFINITION OF POTENTIAL LEARNERS	Interested in "anything . . . you'd like to know more about"; no time limit (may be current AE participants)	Interested in "any topic or skill"--within next 2 yrs.
POTENTIAL LEARNERS AS % OF SAMPLE	77%	42%
NEEDS/DESIRES[2]		
Scheduling	12	-
Location	18	6
Reason for location choice	-	open-ended (6)
Methods	12	12
Subjects	49	open-ended (10)
Motivations/reasons for learning	21	open-ended (6)
Barriers	25	open-ended (7)
Counseling/educ.services desired	2 (counseling; transcript sent to employers, institutions)	(interest in counseling/information)
Credit	8	8
Degree/diploma	8	open-ended (7)
Amount $ willing to pay	5	-
Time per wk. willing to give	-	open-ended (5)
Length time willing to study	-	open-ended (6)
OTHER[2]		
Knowledge of educational opportunities	1	-
Self-confidence	-	-
Evaluation of education	-	Have higher ed. schools been beneficial to you?
Job satisfaction/ interest in changing jobs	-	-
Want public $ for AE	-	3

Appendix A: Studies of Characteristics and Needs of Potential Learners (continued)

	NEW YORK (1977)	NORTHEAST CALIFORNIA (1972)	NORTHEAST NEW YORK (1974)
PURPOSES	Needs assessment--to supplement NY regional surveys[4] Survey of CE delivery system (only public educ. insts., and not including 4-yr. colleges) CE staff inservice training needs survey	Needs assessment--part of project for extending higher educ. services "Decision-maker" survey	Needs assessment Resources inventory Employer survey Develop model for regional planning Survey of current AE students[5]
STUDY SPONSOR	NY State Education Department (funded under Title VI, Adult Ed. Act)	California Coordinating Council for Higher Education	NY St. Ed. Dept. (funded under Title I, HEA)
SAMPLE	N=20,486 persons, 16 yrs. or older and not full-time students Random sample Does not include NYC residents	N=1628 persons, 18 yrs. or older Stratified weighted random sample	N=1055 persons, 18 yrs. or older and not full-time students Random sample
STUDY METHOD	Field interview	Field interview	Field interview
DEMOGRAPHIC VARIABLES[2]			
Sex	2	2	2
Age	5	5	open-ended
Race/ethnic group	6	6	3
Education	7	8	6
Income	10	6	18
Occupation	-	9	open-ended (12)
Marital status	3	-	5
Rural-urban	4	(rural)	5
Military status	-	-	(4-part question)
Full-time student	-	yes	-
Part-time student	yes	yes	yes
DEFINITION OF POTENTIAL LEARNERS	Express interest in learning about one or more of 42 subjects in list provided by interviewer	Desire to attend college in the area; no time limit	Currently interested in "courses ... you felt you would like to take but did not"
POTENTIAL LEARNERS AS % OF SAMPLE	94%	36% (plus 14% who now attend or plan to)	34%
NEEDS/DESIRES[2]			
Scheduling	14	9 (schedules for external degree prog.)	16
Location	11	(2- or 4-year college)	6
Reason for location choice	7	-	-
Methods	7	Interested in home instruction?	4 (classes vs. indep. study)
Subjects	43	19 degree prog.; 23 voc./personal subj.	30
Motivations/reasons for learning	8	-	8
Barriers	21	7	13
Counseling/educ.services desired	(questions on counseling and information interests)	-	1 (family center)
Credit	3	8	-
Degree/diploma	7	External degree interest	-
Amount $ willing to pay	6	-	7
Time per wk.willing to give	-	-	-
Length time willing to study	4	-	-
OTHER[2]			
Knowledge of educational opportunities	(several questions)	Which CC district are you in?	(several questions, including knowledge of nontraditional prog)
Self-confidence	-	-	-
Evaluation of education	-	Favorable/unfavorable impression of local community college?	-
Job satisfaction/interest in changing jobs	-	-	(several questions)
Want public $ for AE	-	-	3

Appendix A: Studies of Characteristics and Needs of Potential Learners
(continued)

	NORTHERN NEW YORK (1976)[1]	ONTARIO (1976)	WESTERN NEW YORK (1976)
PURPOSES	Needs assessment Resources inventory Analysis of course overlap Recommendations Contribute to statewide planning Survey of current AE students[5]	Needs assessment[4] Evaluation of a proposal	Needs assessment Resources inventory Contribute to statewide planning
STUDY SPONSOR	NY State Education Dept. (funded under Title I, HEA)	Ontario Educ. Communications Authority	NY State Educ. Dept. (funder under Title I, HEA)
SAMPLE	N=about 600 persons Stratified random sample from phone directories	N=1541 persons, 18-69 yrs. & not full-time students (unless heads of households) Weighted random sample	N=about 1500 persons, 18 yrs. or older Stratified random sample
STUDY METHOD	Telephone interview (Also: four surveys of special groups, e.g., rural women)	Field interview	Field interview in north (urban) counties; telephone interview in south (rural) counties
DEMOGRAPHIC VARIABLES[2]			
Sex	(not reported)	2	2
Age	"	10	(7)
Race/ethnic group	"	(language groups: 9)	4
Education	"	13	7
Income	"	10	open-ended (7)
Occupation	"	Open-ended	Open-ended (4)
Marital status	"	5	5
Rural-urban	"	4	-
Military status	"	-	-
Full-time student	"	-	-
Part-time student	"	-	yes
DEFINITION OF POTENTIAL LEARNERS	Can name areas of study that interest them	Interested in undertaking learning activities in next year or two, but not now involved in learning	Want to participate in adult learning at some point after completing full-time education (including those who had been AE participants but are no longer interested)
POTENTIAL LEARNERS AS % OF SAMPLE	40%	18%	58%
NEEDS/DESIRES[2]			
Scheduling	(not reported)	-	17
Location	"	-	open-ended (6)
Reason for location choice	"	-	-
Methods	"	10	8
Subjects	(50+)	open-ended(several hundred noted)	open-ended (48)
Motivations/reasons for learning	6	open-ended (11)	open-ended (22)
Barriers	5	14	open-ended (19)
Counseling & ed.services desired	(not reported)	(sev.questions on counseling interest)	(counseling/advising interest: childcare)
Credit	"	6	8
Degree/diploma	2	8	-
Amount $ willing to pay	(not reported)	8	7
Time per wk.willing to give	"	8	open-ended
Length time willing to study	"	9	-
OTHER[2]			
Knowledge of educational opportunities	(2 questions)	8 (1 question)	(several questions)
Self-confidence	(not reported)	-	-
Evaluation of education	"	-	-
Job satisfaction/interest in changing jobs	"	-	(several questions)
Home-public & fam.AE	"	-	6

Appendix A: Studies of Characteristics and Needs of Potential Learners

(continued)

	IOWA (1976)	LONG ISLAND NY (1976)
PURPOSES	Needs assessment Resources inventory Recommendations Evaluation of proposal Survey of current AE students[5]	Needs assessment Resources inventory Respond to state and institutional planning needs
STUDY SPONSOR	Iowa Higher Education Facilities Commission	Long Island Reg. Adv. Council on Higher Ed. & NY St. Ed. Dept. (funded under Title I, HEA)
SAMPLE	N=800 persons, 18 yrs. or older Representative sample	N=1112 persons (in mail survey) 18 yrs.or older and not full-time students
STUDY METHOD	Field interview	Mail survey (Also: 4 surveys of special groups--e.g., low income, senior citizens)
DEMOGRAPHIC VARIABLES[2]		
Sex	2	2
Age	10	open-ended (4)
Race/ethnic group	-	4
Education	8	4
Income	6	5
Occupation	13	open-ended (8)
Marital status	-	-
Rural-urban	3	-
Military status	-	-
Full-time student	yes	-
Part-time student	yes(2)	-
DEFINITION OF POTENTIAL LEARNERS	Interested in "some form of further learning beyond high school"--within next 2 years	Say there definitely is or may be a reason for them to consider participating in learning (excluding current participants)
POTENTIAL LEARNERS AS % OF SAMPLE	36%	70%
NEEDS/DESIRES[2]		
Scheduling	(included under methods)	-
Location	14	8
Reason for location choice	7	-
Methods	15	-
Subjects	55	8
Motivations/reasons for learning	11	8
Barriers	17	33
Counseling/educ.services desired	12	-
Credit	11	-
Degree/diploma	-	-
Amount $ willing to pay	10	-
Time per wk.willing to give	7	-
Length time willing to study	-	-
OTHER[2]		
Knowledge of educational opportunities	(2 questions)	8 (1 question)
Self-confidence	-	-
Evaluation of education	-	-
Job satisfaction/interest in changing jobs	-	-
Want public $ for AE	-	-

Appendix A: FOOTNOTES

[1]Survey questionnaire was not available; description of the survey's dimensions is therefore based on reported variables.

[2]Chart shows the number of categories collected on each variable by the questionnaire. (Exception: When a question was open-ended, the number of categories reported in the study is given in parentheses.)

[3]Interviewer had a list of examples to provide, "if necessary."

[4]Data on current AE participants and their motives and subjects studied were collected through the same survey. Generally, the same dimensions were assessed. The CNS (1974) and Ontario (1976) studies provide extensive analysis of these current AE learners.

[5]See Appendix B, for separate survey of current AE participants.

Appendix B

STUDIES OF CHARACTERISTICS AND LEARNING CONDITIONS OF ADULT EDUCATION PARTICIPANTS

Appendix B describes major surveys of participants in adult and continuing education (that is, individuals currently enrolled in learning activities designed for adults).

(Appendix B follows the same basic format as that for Appendix A.)

Appendix B: Studies of Characteristics and Learning Conditions of AE Participants

	IOWA (1976)	MASSACHUSETTS (1973)
PURPOSES	Survey of current AE students[1]	Survey of current AE students Resources inventory Recommendations
STUDY SPONSOR	Iowa Higher Ed. Facilities Commission	Massachusetts Advisory Council on Education
SAMPLE	N=650 current students, 18 yrs. or older & not enrolled full-time in regular on-campus program Questionnaire distributed to 65 Iowa higher ed. institutions	N=over 6000 enrollees in continuing ed. classes in higher education institutions
STUDY METHOD	Questionnaire given or administered by institts. to a 3-5% sample of their AE students	Questionnaire given in class to students in 7% random sample of cont.ed. classes
DEMOGRAPHIC VARIABLES[2]		
Sex	2	2
Age	10	5
Ra[illegible]/ethnic group	6	5
Education	8	7
Income	5	8
Occupation	open-ended (9)	9
Marital status	-	3
Rural-urban	3	-
Military status	-	3
Full-time student	-	-
Part-time student	yes	-
DEFINITION OF AE PARTICIPANT	Current part-time student (12 semester hrs. or less) in credit or noncredit higher education programs, on or off campus	Students enrolled in continuing ed. classes in degree-granting higher ed. institutions
LEARNING CONDITIONS[2]		
Schedule(s)	(included under methods)	16
Location(s)	13	3
Method(s)	14	-
Subject(s)	open-ended (16 categories reported)	9
Motivations/reasons for learning	10	6
Previous barriers/current difficulties	16 (previous barriers)	8 (problems in enrolling in the future)
Credit	9	4
Degree/diploma orientation	9	9
Amount $ paying	open-ended (median reported)	9
Employer/other reimbursement	2	8
Time spending per week	open-ended (median reported)	5
ADDITIONAL SERVICES/PREFERRED CONDITIONS[2]		
Schedule(s)	(included under methods)	4 (preferred)
Location(s)	13 (preferred)	2 (additional)
Method(s)	14 (acceptable)	1 ("open univ." interest)
Subject(s)	-	6 (additional)
Counseling & educ.services desired	11	3 (credit for exper.,counseling,family center)
Amount $ willing to pay	open ended (median reported)	9
Time willing to give	open-ended (median reported)	-
OTHER[2]		
How learned about program	-	8
Evaluation of education	-	-
Attractions to program	-	5
Interest in changing jobs	-	(several questions)

Appendix B: Studies of Characteristics and Learning Conditions of AE Participants (continued)

	MEDSKER ET AL. (1975)	NORTHEAST NEW YORK (1974)	NORTHERN NEW YORK (1976)[3]
PURPOSES	Examination of consequences of extended degree programs, in terms of students, credibility, impact, and costs	Survey of current AE students[1]	Survey of current AE students[1]
STUDY SPONSOR	Center for Research and Development in Higher Education, UC-Berkeley (funded by NSF-Rann)	NY State Education Dept. (funded under Title I, HEA)	NY State Educ. Dept. (funded under Title I, HEA)
SAMPLE	Individual samples (60-602) of students in 13 selected extended degree programs (plus institutional data on students in 5 other progs.)	N=1134 students enrolled in continuing ed. divisions in 18 higher ed. institutions Representative sample	N=1767 continuing ed. students at six higher ed. institts. plus 451 students at Board of Cooperative Ed. Services
STUDY METHOD	Questionnaire administered directly to students in the 13 programs	Questionnaire distributed in selected continuing education classes	Questionnaire administered in class to all cont. ed. students
DEMOGRAPHIC VARIABLES[2]			
Sex	2	2	2
Age	8	5	7
Race/ethnic group	6	5	-
Education	8	7	8
Income	9	8	8
Occupation	open-ended	9	10
Marital status	4	3	3
Rural-urban	-	-	-
Military status	5	3	3
Full-time student	yes	-	-
Part-time student	yes	yes	yes
DEFINITION OF AE PARTICIPANT	Students in extended degree programs (i.e., program designed primarily for adults) in higher ed. institutions	Part-time students (18 yrs. or older & taking less than 12 credit hours) in higher ed. institutions	Part-time students enrolled in credit or noncredit programs, and full-time students also enrolled in noncredit cont.ed. programs
LEARNING CONDITIONS[2]			
Schedule(s)	(questions about scheduling flexibility)[4]	16	(not reported)
Location(s)	(questions about location convenience)[4]	3	"
Method(s)	11[4]	-	"
Subject(s)	open-ended	9	
Motivations/reasons for learning	10	6	6
Previous barriers/current difficulties	16 (current difficulties)	8 (problems enrolling in future)	(not reported)
Credit	(questions about credit for prior or nonschool learning)	4	4
Degree/diploma orientation	7	9	6
Amount $ paying	-	6	(not reported)
Employer/other reimbursement	(2 questions)	8	8
Time spending per week	7	5	(not reported)

Appendix B (continued)

	MEDSKER ET AL. (1975)	NORTHEAST NEW YORK (1974)	NORTHERN NEW YORK (1976)
ADDITIONAL SERVICES/PREFERRED CONDITIONS[2]			
Schedule(s)	-	4 (preferred)	(not reported)
Location(s)	-	2 (additional)	"
Method(s)	11 (additional)	1 ("open univ." interest)	"
Subject(s)	8 (additional)	6 (additional)	"
Counseling & ed.services desired	-	3	"
Amount $ willing to pay	-	6	"
Time willing to give	-	-	"
OTHER[2]			
How learned about program	11	8	(not reported)
Evaluation of education	(several questions)	-	"
Attractions to program	16	5	5
Interest in changing jobs	-	(several questions)	(several questions)

[1] See Appendix A for other purposes, including separate survey of adult potential learners.

[2] Chart shows the number of categories collected on each variable by the questionnaire. (Exception: When a question was open-ended, the number of categories reported in the study is given in parentheses.)

[3] Survey questionnaire was not available; description of the survey's dimensions is therefore based on reported variables.

[4] Study also collected information from the institutions on individual programs' schedules, locations, and methods.

Appendix C

ADULT EDUCATIONAL NEEDS ASSESSMENTS AND SURVEYS OF CONTINUING EDUCATION STUDENTS*

ARKANSAS (1974)

Campbell, M., et al. *New students: New markets for the University of Arkansas? Educational needs and interests in the Northwest Arkansas area.* Fayetteville: University of Arkansas, 1974.

CALIFORNIA (1975)

Hefferlin, JB, Peterson, R. E., & Roelfs, P. J. *California's need for postsecondary alternatives* (First technical report, Part I). Sacramento: California Legislature, 1975.

CENTRAL NEW YORK (1975)

Wilcox, J., Saltford, R. A., & Veres, H. C. *Continuing education: Bridging the information gap.* Ithaca: Institute for Research and Development in Occupational Education, Cornell University, 1975.

COLORADO (1975)

Barlow, B. M., & Timiraos, C. R. *Colorado adult needs assessment* (Final technical report). Denver: Colorado Department of Education and State Board for Community Colleges and Occupational Education, 1975.

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*This list includes major national, state, and regional needs assessments of adult potential learners and surveys of current continuing education students which have been compiled in the last five years.

COMMISSION ON NON-TRADITIONAL STUDY (1974)

Carp, A., Peterson, R. E., & Roelfs, P. J. Adult learning interests and experiences. In K. P. Cross, J. Valley & Associates (Eds.). *Planning non-traditional programs.* San Francisco: Jossey-Bass, 1974.

FLORIDA (1976)

Florida Commission on Educational Outreach and Service. *Access to knowledge* (Vol. II: Supporting data). Tallahassee: State University System of Florida, 1976.

GENESEE VALLEY NEW YORK (1975)

Carlivati, P. A. *Toward developing a coordinated system of post-secondary continuing education in the Genessee Valley region, a summary report.* Rochester: Rochester Area Colleges, 1975.

HAYWARD, CALIFORNIA (1976)

McCabe, G. E., & Straton, R. A. *University courses via cable TV: A survey of households within the service area of one cable company and projections for a statewide program.* Los Angeles: The California State University and Colleges, The Consortium, 1976.

ILLINOIS (1975)

A. C. Nielsen Company. *Adult educational interest survey.* Northbrook, Ill.: Author, 1973.

IOWA (1976)

Hamilton, I. B. *The third century: Postsecondary planning for the nontraditional learner.* Princeton, N. J.: Educational Testing Service, 1976.

LONG ISLAND NEW YORK (1976)

Heston, W. M., & Fantz, J. C. *Toward a comprehensive coordinated system of postsecondary continuing education for Long Island.* New York: Long Island Regional Advisory Council on Higher Education, 1976.

MASSACHUSETTS (1973)

Nolfi, G. J., & Nelson, V. I. *Strengthening the alternative post-secondary education system: Continuing and part-time study in Massachusetts* (Vol. II: Technical report). Cambridge: University Consultants, 1973.

MEDSKER ET AL. (1975)

Medsker, L., Edelstein, S., Kreplin, H., Ruyle, J., & Shea, J. *Extending opportunities for a college degree: Practices, problems, and potentials.* Berkeley: Center for Research and Development in Higher Education, University of California, 1975.

MID-HUDSON NEW YORK (1975)

Vivona, R., Miringoff, M., & Watsky, C. *Adult post-secondary continuing education in the mid-Hudson region: Increased access to improve the quality of life.* Poughkeepsie, N.Y.: Associated Colleges of the Mid-Hudson Area, and New Paltz, N.Y.: Mid-Hudson Region Continuing Education Project, 1975.

NCES (1969)

National Center for Educational Statistics. *Participation in adult education, final report, 1969.* Washington, D.C.: Author and Department of Health, Education, and Welfare, 1974.

NCES (1972)

National Center for Educational Statistics. *Participation in adult education, final report, 1972.* Washington, D.C.: Author and Department of Health, Education, and Welfare, 1976.

NCES (1975)

National Center for Educational Statistics. *Participation in adult education, final report, 1975.* Washington, D.C.: Author and Department of Health, Education, and Welfare, in press.

NEW YORK (1977)

New York State Education Department (University of the State of New York), Division of Continuing Education. *New York State continuing education needs assessment* (Report No. 1: Statewide analysis). Albany, N.Y.: State Department of Education, 1974.

NORTHEAST CALIFORNIA (1972)

Treseder, C. *A survey of attitudes toward higher and continuing education in northeastern California.* San Jose: Diridon Research Corporation, 1972.

NORTHEAST NEW YORK (1974)

Nurnberger, R. G. *A profile of need: A study of postsecondary education needs in northeastern New York State.* Albany: College of General Studies, State University of New York at Albany, 1974

NORTHEAST NEW YORK (1975)

Stelzer, L., & Banthin, J. *A study of postsecondary education needs in northeastern New York State: Secondary analysis.* Latham: Capital Associates, 1975.

NORTHERN NEW YORK (1976)

Correa, J. M. *Regional needs and resources for postsecondary education: A report of the northern region postsecondary education group.* Potsdam: Associated Colleges of the St. Lawrence Valley, 1976.

ONTARIO (1976)

Waniewicz, I. *Demand for part-time learning in Ontario.* Ontario, Canada: Ontario Educational Communications Authority, 1976.

SUN (1972)

Ross, G. R., Brown, R. D., & Hassel, M. *Clientele study for the proposed state university of Nebraska (SUN)--a multi-media off-campus collegiate program.* Lincoln: University of Nebraska, 1972.

SUN (1974)

Eggert, J. D. *An examination of goals of potential and actual learners: University of Mid-America/State University of Nebraska* (Working paper No. 1). Lincoln: University of Mid-America/ State University of Nebraska, Office of Research and Evaluation, 1974.

SUN (1977)

Bryan, D., & Forman, D. C. *Characteristics of SUN learners (first five offerings): Statistical summary No. 4.* Lincoln, Neb.: University of Mid-America, 1977.

TEXAS (1974)

Neidhart, A. C. (Ed.). *Continuing education for Texas: Special studies of non-traditional approaches to education.* Austin: Southwest Texas State Univeristy, 1974.

WASHINGTON (1976)

Randall, M. E., Pailthorp, K., & Bigelow, M. L. *Postsecondary education in the Tri-Cities.* Olympia: Washington Council for Postsecondary Education, 1976.

WESTERN NEW YORK (1976)

Robinson, K., & Herdendorf, P. S. *Final report on the survey of public demand/need for postsecondary continuing education for adults (lifelong learning programs) in western New York.* Buffalo: Project Impact, the Western New York Postsecondary Continuing Education Study, 1976.